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DEPARTMENT OF ECONOMICS AND DEVELOPMENT

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OPPORTUNITY THROUGH ON-THE-JOB TRAINING

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THE ONTARIO ECONOMY

Production

Canada's steel ingot production in the first two months of 1966 was 1,657.7 thousand tons, an increase of 7.2 per cent over the corresponding period last year. For the month of February alone, production was 790.6 thousand tons, ahead of last February by 8.6 per cent.

In January 85,751 motor vehicles were produced in Canada, 29.7 per cent more than January 1965. This substantial increase largely reflected the benefits accruing from the Canada-U.S. Automotive Free Trade Agreement, put into effect just over one year ago.

The seasonally-adjusted Canadian Index of Industrial Production (based on 1949 = 100) reached an all-time high of 242.2 in December. This 1.1 per cent increase from the previous month brought the December level 9.5 per cent ahead of December 1964. Durables manufacturing was the strongest component, with the rapid growth of motor vehicle production the dominant factor. A comparison of the December Index for 1965 and 1964 shows that mining rose 7.5 per cent, total manufacturing 10.1 per cent, and electric power and gas utilities 8.6 per cent. Durables and non-durables manufacturing were up 15.3 per cent and 5.6 per cent respectively.

ONTARIO INDEX OF MANUFACTURING PRODUCTION*, 1963-1965

(January-November Averages)

	1963	*1964*	*1965*	*1964/63*	*1965/64*
		1956 = 100		*% Change*	
Total selected non-durables	127.4	136.4	145.0	7.1	6.3
Foods and beverages	123.1	132.8	137.5	7.9	3.5
Rubber products	121.7	136.3	140.8	12.0	3.3
Leather products	119.9	126.5	108.3	5.5	—14.4
Textiles	121.6	133.3	144.9	9.6	8.7
Paper products	122.9	133.9	142.7	9.0	6.6
Printing and publishing	113.4	120.0	124.1	5.8	3.4
Chemical products	156.9	172.5	185.4	9.9	7.5
Total durables	115.6	129.2	143.8	11.8	11.3
Wood products	116.9	123.7	128.7	5.8	4.0
Iron and steel products	118.1	132.1	143.8	11.9	8.9
Transportation equipment	113.4	132.2	159.3	16.6	20.5
Non-ferrous metals	109.6	119.5	130.4	9.0	9.1
Electrical apparatus	112.5	122.1	135.0	8.5	10.6
Non-metallic mineral products	128.7	145.0	152.7	12.7	5.3
Total manufacturing*	120.4	133.0	144.4	10.5	8.6

*Excludes clothing, tobacco, products of petroleum and coal, and miscellaneous manufacturing.

Source: Ontario Department of Economics and Development.

On the basis of average figures for 1965 and 1964 there was an overall increase of 7.7 per cent in the Index of Industrial Production. Total manufacturing recorded exactly the same gain, durables rising 10.2 per cent, non-durables 5.5 per cent. Electric power and gas utilities grew as rapidly as durables manufacturing.

In Ontario the value of manufacturing shipments for 1965 was recorded at $17,785.6 million – 52.2 per cent of Canada's $34,101.2 million. The gain over last year was 10.2 per cent, greater than for any other province.

The Ontario Index of Manufacturing Production, first introduced in the October 1964 issue of the *Ontario Economic Review*, is shown on page 1 with figures for the first 11 months of 1965. Once again the impact of motor vehicle production on the transportation equipment component was the most outstanding feature.

Construction

Ontario recorded impressive gains in the value of construction contracts awarded in February. During that month awards were valued at $140.3 million, more than 60 per cent higher than in February 1965, when the total was $87.6 million. Spectacular increases in industrial and institutional construction accounted for most of the increase. The former group, mainly benefiting from expansion in manufacturing and processing plant capacity, grew from $16.0 million to $47.9 million; the latter, largely made up of school and college construction, went from $16.2 million to $41.9 million. Of the other construction groups, residential declined by about $1.0 million to a level of $31.2 million, business dropped about $4.3 million to a level of $8.7 million, and engineering edged up $0.5 million to the $10.6 million mark.

LARGE CONSTRUCTION AWARDS PLACED RECENTLY IN ONTARIO

Location	*$ Million*	*Description*
Brantford	2.1	School
Copper Cliff	6.0	Plant addition
Hamilton	3.1	Steel plant addition
Kitchener	20.0	Plant and office
Ottawa	15.0	Commercial complex
Peterborough	4.9	High school
Powasson	1.0	Home for aged
Preston	1.0	Plant
St. Thomas	2.8	School
Sault Ste. Marie	10.0	Steel plant expansion (initial work)
Scarborough Twp.	7.0	Hospital addition
Toronto	7.5	Apartments
Toronto	7.6	Housing
Windsor	1.0	Factory

Source: Southam Building Guide's Statistical Bulletin.

During February, "Big Jobs" in Ontario – those valued at $1 million and over – amounted to approximately $105.8 million. This represented more than 45 per cent of the national total. Some of the projects are listed in the accompanying table.

Cumulative figures for construction contract awards in 1966 place total awards at $301.9 million, only 7.3 per cent ahead of the two-month total for 1965. A very strong first month last year – led principally by heavy public building and apartment construction – moderated the overall gain for 1966.

As a percentage of total value in the January-February period, institutional construction was highest with 27.6 per cent. Residential awards were next at 24.3 per cent, followed by industrial construction at 21.0 per cent. Engineering awards made up 18.2 per cent, with business construction smallest at 8.9 per cent.

In an apparent return to more normal seasonal patterns, Ontario residents stepped up housing construction in January. Compared with that month last year, starts were up 42.7 per cent, numbering 3,001 dwelling units. The number of starts in Hamilton moved up an impressive 130.9 per cent. In Toronto the 1,587 dwelling unit starts represented an increase of 69.7 per cent.

Dwelling unit completions, also particularly strong in Hamilton and Toronto, numbered 3,976 for the entire province – a gain of 46.7 per cent. Units under construction at the end of that month numbered 52,999, one-fifth more than a year earlier.

Eaton Centre

On March 1st plans were unveiled for Eaton Centre, a giant $260 million six-building complex in downtown Toronto. Covering 22.5 acres of land adjacent to the new Toronto City Hall, the proposed Centre is to consist of a 69-storey office and apartment building, twin 57-storey office buildings, a circular 20-storey 500-room convention hotel, a nine-floor store and a 32-storey office tower. About one-half of the total area would be left as open public space, with walkways, landscaped areas and sculptures designed to complement the City Hall. Four underground levels would provide space for parking and for public transit.

The proposed Eaton Centre would be three times the size of Place Ville Marie and three and one-half times the size of the original Rockefeller Center. When completed it would house a working population of about 65,000 as opposed to 11,000 presently in the area. In addition to the major structures there would be space for over 200 private shops. It is estimated that 200,000 people a day would visit the all-purpose work, recreational and cultural centre.

Plans for the development of the Centre require the partial removal of the old City Hall, according to Eaton Centre officials. Once it is acquired, construction would begin within six months. In the first phase — to last three years — the new store, one of the twin 57-storey office buildings and the hotel would be completed. The entire project is to take 15 years to complete.

Retail Sales

In keeping with the high level of economic activity prevalent throughout the economy, Ontario retail sales for 1965 reached a level of $8,018 million, an increase of 8.2 per cent over the previous year. Sales rose faster than in all provinces with the exception of British Columbia. Ontario displayed particularly impressive growth in motor vehicle and jewellery store sales, moving ahead of 1964 by 16.0 per cent and 12.6 per cent respectively. Variety and selected food and beverage store sales both were up more than 11 per cent. And clothing and shoe stores as a group were generally about eight per cent higher than the previous year. While no category actually declined, sales of lumber and building material dealers and general stores were unimpressive, rising only 2.0 per cent and 0.7 per cent respectively.

On the national level the overall increase was 7.6 per cent, rising to a value of $21,591 million. The most-rapidly growing businesses across Canada were generally the same as those growing fastest in Ontario.

Foreign Trade

According to preliminary figures of the Dominion Bureau of Statistics, total Canadian exports in January 1966 — including domestic exports and re-exports — were estimated at $743.6 million, an increase of 26.7 per cent over the same month last year. To a considerable extent this large increase reflected the relatively low January 1965 level as well as the recent rapid growth of motor vehicle and parts exports. Exports to the United States, valued at $416.9 million, were up 23.8 per cent, while those to the United Kingdom were 12.3 per cent higher at $101.0 million. The modest 4.4 per cent increase for other Commonwealth and preferental rate countries was accompanied by a 51.6 per cent increase for all other countries. Wheat exports were apparently significant in the case of the latter group.

Complete 1965 data, based on actual domestic exports and estimated imports, indicate that imports exceeded exports by $115.6 million last year. Domestic exports were valued at $8,523.0 million, a rise of 5.3 per cent over 1964; imports were estimated at $8,638.6 million, up 15.4 per cent. Trade balances with the United States, the United Kingdom, and all other countries as a whole worsened in 1965.

While sales to the United States were up 13.3 per cent last year to a level of $4,838.7 million, imports rose even more rapidly — by 17.1 per cent — to $6,049.2 million. The resulting trade imbalance of $1,210.5 million was over one-third greater than it had been the previous year.

Canada maintained a favourable balance of trade with the United Kingdom, but at $554.4 million it represented a decline of over $70 million from 1964. Unfavourable economic conditions in Britain, combined with its attempts to improve its own trade balance, led to a 2.1 per cent reduction in its purchases of Canadian goods. At the same time imports rose 8.0 per cent to $620.0 million.

Smaller wheat shipments to communist countries in 1965 were responsible for the deteriorating export balance with all other countries of the world. Exports declined from 1964 to 1965, dropping 4.3 per cent to a level of $2,509.9 million. Imports on the other hand rose 12.6 per cent, producing an export balance of $540.5 million — almost 40 per cent less than the year before.

The breakdown of domestic exports shows that in spite of reduced wheat and wheat flour sales, exports climbed 5.3 per cent. (This incidentally was the minimum rate required to meet the 1970 goals of the Economic Council of Canada.) From the following table it is clear that inedible end products — exports of fully-manufactured non-food items — played an important role in accomplishing this.

1965 DOMESTIC EXPORTS OF CANADA

	Value in $ Million	*% of Total*	*% Change 1965/64*
Live animals	79.1	0.9	129.3
Food, feed, beverages and tobacco	1,629.9	19.1	—9.7
Crude materials, inedible	1,763.4	20.7	9.1
Fabricated materials, inedible	3,728.8	43.8	6.5
End products, inedible	1,298.2	15.2	17.0
Special transactions-trade	23.5	0.3	—10.2
Total domestic exports	8,523.0	100.0	5.3

Source: DBS, External Trade Division.

Last year wheat and wheat flour exports declined 19.3 per cent; in falling to $906.6 million these exports accounted for most of the decline in food, feed, beverages and tobacco.

Changes in the more-important crude material items were: iron ores and concentrates, up 1.4 per cent to $360.8 million; nickel in ores, concentrates and scraps, up 14.0 per cent to $189.3 million; and crude petroleum, up 6.8 per cent to $280.0 million.

In fabricated materials there was a 4.2 per cent increase in newsprint paper, rising to $869.6 million, while wood pulp and similar pulp rose 7.1 per cent to $493.5 million. Softwood lumber increased a scant 1.8 per cent, attaining a level of $458.0 million.

What stirred the export picture more than anything else was the dramatic increase in end products — primarily motor vehicles and parts. In just one year the level of motor vehicle and parts exports climbed 99.6 per cent, mainly because of the stimulating effects of the Canada-U.S. Automotive Free Trade Agreement. These exports rose from $177.4 million in 1964 to $354.0 million in 1965. Passenger automobiles and chassis, at $148.6 million, were 119.7 per cent higher.

Aside from these inedible end product exports, there were also impressive increases in communications and related equipment, up 36.3 per cent, and combine reaper-threshers and parts, ahead by 27.1 per cent. Their values in 1965 were $70.8 million and $85.7 million respectively.

Finance

Activity on the Canadian bond market was stimulated in January with the announcement of a $300 million three-part Government of Canada refunding issue. The issue was immediately over-subscribed, with buyers giving special attention to bonds having short-term maturities. As a result of this operation, bond prices, which had remained virtually unchanged during the month, experienced a downward movement — particularly in the short end of the market. This trend to lower prices and higher yields was maintained during the remainder of January and throughout February.

New debt financings by provinces, municipalities and corporations opened the year at a fast pace, with a significant proportion raised in the United States market. By January 15th the value of new issues placed or delivered in the United States totalled approximately $306 million — 32 per cent of all Canadian issues placed in the United States during the whole of 1965. To some extent this development was accounted for by the delivery early in January of placements which had been deferred during the latter part of 1965. It is likely that the rate of borrowing in the United States was spurred by apprehensions that access to this market might be restricted during 1966.

A tendency to lower prices on the provincial bond market was maintained during February. Two new $50 million issues by the Provinces of Ontario and Quebec highlighted activity in that market. A number of new issues came to the municipal bond market, particularly in February when Metropolitan Toronto offered a new issue amounting to $34.4 million. The corporate sector was also active with Bell Telephone Company of Canada placing a $40 million issue. Prices in both the municipal and corporate sectors tended to be off fractionally during February.

Demand and supply conditions on the "day-money" market reflected generally tighter credit conditions. These funds were in relatively short supply, with the interest rate on loanable funds fluctuated between 4¼ per cent and 4⅜ per cent during January. Although pressure on these funds eased slightly in the first week of February when the "day-money" rate declined to 3½ per cent, this situation proved only temporary and during the remainder of the month the rate fluctuated narrowly at about 4¼ per cent. A movement to tighter credit conditions in Canada was reflected in the average tender yield on 91-day Canada Treasury Bills, which moved from 4.58 per cent on January 6th to 4.69 per cent on February 24th. It can be anticipated that the yield will increase in the weeks ahead.

The trend toward increased activity and price advances which was evident on Canadian stock exchanges during the latter part of 1965 carried through into January 1966. However, at the beginning of February price declines set in, along with accompanying selling pressures. The Toronto Stock Exchange Industrial Index recorded its longest sustained decline since the 12-day decline ending November 23rd, 1965. The market firmed somewhat at month-end and the Index closed at 170.06.

Canada's foreign exchange reserves in gold and U.S. dollars amounted to $2,562.4 million on January 31st, 1966, compared to $2,664.5 million at the same period last year. This change must be assessed in the light of Canada's objective of keeping in line with the requirements of the U.S. equalization exemption "agreement".

NOTE: *Commencing with this issue the economic indicators at the back of the* Ontario Economic Review *are being charted on an arithmetic rather than semi-logarithmic scale.*

Opportunity Through On-the-Job Training

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Rapid industrial change has placed new emphasis on education and training as means of facilitating labour market adjustments. The Province of Ontario, aware of the need for a well-qualified labour force, is making major efforts in this direction. Basic educational programs are being improved and made more readily accessible to people of all ages; and a wide range of vocational and on-the-job training is being undertaken by the Ontario Departments of Education and Labour.

In 1963 "The Select Committee on Manpower Training" of the Ontario legislature reported on measures that could be taken by government, industry and labour to improve training programs. In response to the Committee's findings the Department of Labour early in 1965 re-defined its training objectives as follows:

(i) To most efficiently help industry fill the skill gap and stimulate sound economic growth;
(ii) To open new employment opportunities for young people through on-the-job training;
(iii) To anticipate and meet the economy's rapidly changing manpower requirements;
(iv) To help meet the challenges and problems associated with technological, economic and social change.

THE TRAINING ARRANGEMENTS

These objectives are now being achieved through a program of apprenticeship and short-term on-the-job training carried out by the newly established Industrial Training Branch.

Apprenticeship

In October 1964 *The Apprenticeship and Tradesmen's Qualification Act* put into effect some of the recommendations of the 1963 Select Committee. As a consequence, apprenticeship training is now available in more than 100 trades, with programs developed or revised to meet present-day needs.

Apprentices get most of their training in work situations. But they also spend several weeks in day classes at Provincial Trade Schools operated by the Department of Education. During the time away from the job, the apprentice is given a subsistence allowance, tuition fees and transportation costs, of which 50 per cent is contributed by the Government of Canada and 50 per cent by the Province.

To make apprenticeship more attractive, a system is in effect in some trades giving credit toward journeyman status for academic achievement. By lifting the upper age limit at which training may begin, older workers are encouraged to add to their skills and become tradesmen. In addition, the Industrial Training Branch is reviewing and revising its apprenticeship programs to ensure that they meet present-day skill requirements.

The new approach has been in effect too short a time to indicate what impact it will have on apprenticeship training in Ontario. However, the number of active apprentices in the province at the end of February 1966 was 12,338, compared to 9,813 at the end of March 1965, an increase of 20.5 per cent in 11 months.

Short-Term On-the-Job Training

Not all jobs, of course, call for fully-trained journeymen. Often workers are needed with just one or two specific skills. Therefore, short-term training — lasting from two weeks to two years — has been added to the Industrial Training Branch's program. Whenever possible, skills are taught on a block-building basis, so that trainees in these shorter courses have the opportunity of acquiring related skills at a later date. Then, if they wish to become apprentices, they may be given credit toward journeymen status for what they have already learned.

Depending upon the complexity of the skill, short-term on-the-job training may be supplemented by home study courses or classroom instruction. When this need arises, courses are arranged in co-operation with the Ontario Department of Education at a nearby school; where a skill is more complex, this is carried out at the nearest Provincial Institute of Trades.

These arrangements extend the apprenticeship principle into shorter term training in industry; and they divide responsibilities between the Departments of Education and Labour in a manner similar to that existing under the apprenticeship system.

The federal *Technical and Vocational Training Assistance Act* of 1960 and agreements with the provinces implementing it have been a major stimulus to this program through provision of financial aid for ". . . any form of instruction, the purpose of which is to prepare (a person) for entry into gainful employment in any primary or secondary industry or service occupation, or to increase his skill or proficiency therein."

As for apprenticeship, the costs of short-term training programs are shared by employers and the federal and provincial governments. These shares are determined in accordance with previously established guidelines. For the training of existing staff, the governments pay technical assistance costs and reimburse the employer for salaries paid to instructors. For training unemployed and unskilled persons on the job the governments assume, in addition, part of the wage costs. In all cases, companies are expected to contribute a substantial share of the cost of training.

The shares that are actually borne by employers and government are determined on the merits of each case. The output attained from the trainee while in training varies greatly from one skill or occupation to another, and has an important bearing on the cost-sharing formula adopted. Examples of cost-sharing arrangements are outlined in the following sections of this paper presenting case studies of short-term on-the-job training.

THE PILOT SHORT-TERM TRAINING PROJECT

The Industrial Training Branch received its first request for assistance in implementing a short-term on-the-job training program from a Toronto firm producing a high fashion, quality line of ladies' garments.

The company employed about 300 people and has extensive expansion plans for the near future. Like the rest of the garment industry, it had been affected by the critical shortage of skilled sewing machine operators. Therefore, the objective of the pilot project was to graduate 20 such operators and design a viable format for future on-the-job training projects in the garment and other industries.

Profile of the Trainees

With the cooperation of the National Employment Service an active recruiting program was carried out. Due to the informal nature of the labour market and hiring procedures in the garment industry, about one-half of the 45 recruits were referred by the Service. The firm accepted the remainder from among applicants who came directly to the factory for employment, many having been referred there by friends or relatives working for the company.

From National Employment Service information, it is apparent that some important characteristics of the trainees were:

(i) They were non-English-speaking recently landed immigrants;
(ii) They were almost completely unskilled and inexperienced;
(iii) Most were young and unemployed.

The Program

The project began in early March, 1965, using two instructors who were ordinarily supervisors in the company. For purposes of the project they were detached from their regular duties and paid by the government during the training period.

The program was broken into three phases, with each trainee moving from one phase to a more advanced phase as soon as the necessary knowledge, skill and speed had been acquired. The only restriction was that the total training time would not exceed 10 weeks.

The trainees were paid the minimum wage of one dollar per hour, wage costs being shared equally by the firm and the two levels of government. The federal portion of the governmental share was 75 per cent, the provincial portion 25 per cent. Production returns accrued 100 per cent to the company, while training costs other than wages were borne by the two governments.

Some Results of the Pilot Project

The results of the training were shown in the progressive increase in output of almost all of the trainees. Upon graduation, each trainee was taken out of the course to work on piece rates.

The *average* value of output per hour for the entire group of trainees increased 47¢ in the first seven weeks of training. The averages are tabulated below:

Week of Training	*Value of Output Per Hour*
1st	19¢
2nd	30
3rd	31
4th	37
5th	51
6th	56
7th	66

Early in December, 1965, those graduates still with the firm earned an average weekly wage of $66.40.

Follow-Up on Trainees of the Pilot Program

Of the original group of 45 trainees there were 20 graduates. At mid-January, 1966, 14 of these were still employed at the firm and on piece rather than hourly rates.

Among those no longer with the firm at that time, 16 (6 graduates and 10 non-graduates) were still employed within the industry. They left the company for a variety of reasons, the chief ones being their greater earning potential and employability resulting from the training.

Eight of the trainees left the labour force altogether because of sickness or pregnancy. No information was available on the remaining seven who began the course. They left the training program after only one or two weeks and did not elicit the help of the National Employment Service in subsequent job-seeking.

In summary, 45 trainees originally began in the pilot project; 30 were still employed somewhere within the garment industry at mid-January; 8 had left due to health or pregnancy conditions; and 7 could not be accounted for.

Cost of the Pilot Project

One hundred per cent of the value of production accrued to the firm, thereby reducing its share of the costs. The governments' costs were as follows:

Total Government Costs:	
Trainees' Wages	$3,471.26
Instructors	3,410.00
Total	$6,881.26

The total governmental share of wages amounted to $77 per trainee. In addition the governments paid a total of $76 per trainee to instructors. It was observed that graduates remained in the program an average of 6.2 weeks, while the average time for all trainees was 4.0 weeks.

As a direct consequence of the success of the pilot project the firm contracted with the Industrial Training Branch for a more comprehensive program to train a further 200 sewing machine operators.

Further Developments in the Garment Industry

Utilizing the experience gained in the pilot training project, ten-week on-the-job training programs were set up in nine different garment manufacturing concerns in Toronto. Trainees were recruited with the aid of the National Employment Service, the only requirement being that the candidate be unemployed and unskilled. The recruits, like the bulk of the labour force in the needle trades in Toronto, consisted almost entirely of female immigrants. Ninety of the original 119 recruits successfully completed a 10-week course and have since found steady employment.

In applying the original pilot project formula to the other garment industry projects, one basic change was made. It was decided that production returns would no longer accrue 100 per cent to the firm. Instead the new formula throughout the industry required the firms to bear the following cost:

$$\frac{\text{Wages} - \text{Production}}{2}$$

Thus the difference between wages and the value of the trainees' output is now borne equally by government and the employer.

URANIUM MINE PROJECT

One of the short-term training projects presently underway involves a uranium mining operation in Ontario.

During the late 1950's the mine employed about 1,600 workers. Late in 1959 the United States Government announced that it would not exercise its options on additional uranium; this had the effect of triggering the closure of several Ontario uranium mines. The mine in question adopted a policy of no layoffs during that period, in order to avoid the dislocation of its labour force and of the community as a whole. Instead the work force was reduced by means of normal attrition.

Since early in 1965, prospects for uranium sales have warranted rebuilding the labour force, but the local skill supply has not met the company's needs. Since there has been a general shortage of miners in Canada (recent statistics released by the Mining Association of Canada show that 1,033 jobs are vacant in the industry) the company has concluded that unskilled labour must be attracted and given intensive training if its work force is to be rebuilt within a reasonable period of time.

Request for Assistance

In August, 1965, the company asked the Industrial Training Branch to assist in initiating an on-the-job training program to supply its need for qualified stope miners. It also asked that when necessary the trainees receive educational upgrading to enable them to cope with the more sophisticated equipment they are required to use in the mines.

The firm wished to train 145 completely qualified stope miners in all related skills, including among others, drilling, blasting and slushing. The proposed number of trainees has made allowances for normal labour turnover and expected dropouts from the course.

Previous training experience in the company has indicated that it takes 12 weeks for an average trainee to acquire the skills necessary to reach minimum acceptable production levels. Therefore it has been decided that before he can leave the school the trainee should be familiar with all related skills and be able to drill 25 feet per hour. To be classed as a fully qualified miner he would be required to work without direct supervision on all phases of stope mining and be capable of drilling 35 feet per hour. He would be expected to reach this skill level only after working several months in the production area.

Qualification of Trainees

The firm has endeavoured to recruit trainees in Northern Ontario but has also found it necessary to bring them from greater distances. The qualifications required have automatically eliminated some applicants. They must be between the ages of 19 and 30 years. Since the physical demands of the job are high, the men are required to be sturdy with a weight of not less than 150 pounds. Eyesight standards must be 20/40 or better and must be capable of correction to 20/20 vision through the use of safety glasses. Obvious health defects such as hernia, heart murmurs, or other weaknesses automatically eliminate an applicant. In addition, the Workmen's Compensation Board demands chest X-rays for all underground workers.

Instructors

The firm has selected six bilingual instructors having the necessary background of experience and personal qualities. Each instructor has a minimum of five years' experience as a miner and has achieved the rating of "miner leader". In addition the instructors have been trained in first aid and safety during their employment at the mine before undertaking the training project, and some have had mine rescue training as well. In preparation for their new duties the six men have been given training in instructional techniques, job background, elementary geology, engineering and ventilation, and general familiarization with the functions of other departments including scheduling and budget control.

The Program

The short-term training program which began on November 15th, 1965, is in two phases, the first of which is administered by the Department of Education and the second by the Department of Labour. The company will provide all materials, equipment, and maintain training for a maximum of 145 employees. Also, the company is to provide sufficient work for the trainees so that there will be no break in their training.

Phase One

This part of the training involves academic upgrading and covers a period of between three and six weeks. The purpose of the training is to orient the unskilled applicant so that before going on the job he will have some understanding of the mining industry, the vocabulary used, and updated academic skills that will be required.

Phase Two

This part of the training is on the job. It should be completed within 52 weeks but will be extended if necessary. It is expected that individual employees will remain in Phase Two for 14 to 18 weeks, with the training involving basic mining skills.

The number of trainees assigned to each instructor depends on the level of training being given. The instructor starts with two inexperienced trainees. After a few weeks, when the students require less constant attention, a third trainee is assigned. At various levels of training the maximum number of trainees per instructor is four. With three school stopes operating on a two-shift basis each, a maximum of 24 trainees can be accommodated on the job at the same time.

Cost of Training

Assuming an average of 3.5 trainees per instructor it costs $486.17 for instructors' wages to train each man. To this will be added $1,336.80, the wage cost of the trainee. A further direct cost would be that of supervision. There is one shift boss in charge of the training area on each shift, adding $85.17 to the cost of training each miner, and making a total of $2,008.14 per trainee. The cost of training 145 miners will be approximately $291,180.

Because the goal of the program is to train fully qualified miners rather than miner assistants, training costs are higher than would otherwise be the case. These higher costs arise from an increase in

(i) the required training time per trainee
(ii) a higher anticipated dropout rate, and
(iii) higher hourly rates of pay.

With these factors in mind, a cost-sharing formula has been devised that requires government to pay 12.5 per cent of trainee wage costs plus 50 per cent of the instructional costs.

The total provincial government share of the program works out to approximately $44,000. The number of anticipated graduates, allowing for the high dropout rate in mines is expected to be 80 persons. Therefore, the province's cost of the program per graduate is estimated at $550 plus technical assistance. The employer contributes all facilities, instruction and wages less $550 per graduate.

EXTENT OF SHORT-TERM TRAINING

By the end of February, 1966, there were a total of 481 requests from various firms for short-term training programs. Three projects in the needle trades have been completed, while 64 programs are currently in progress. Most of the trainees are in the textile, garment, foundry, aircraft, mining, woodworking and appliance industries in Ontario.

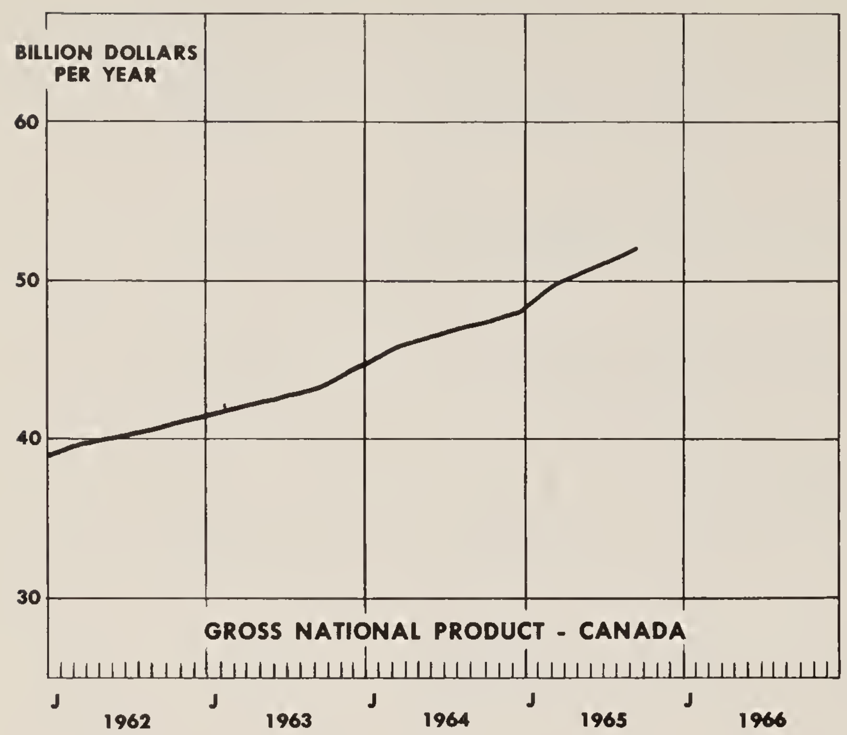
This suggests that short-term on-the-job training is not only accepted, but demanded by industry, and is being utilized in more and more skill areas.

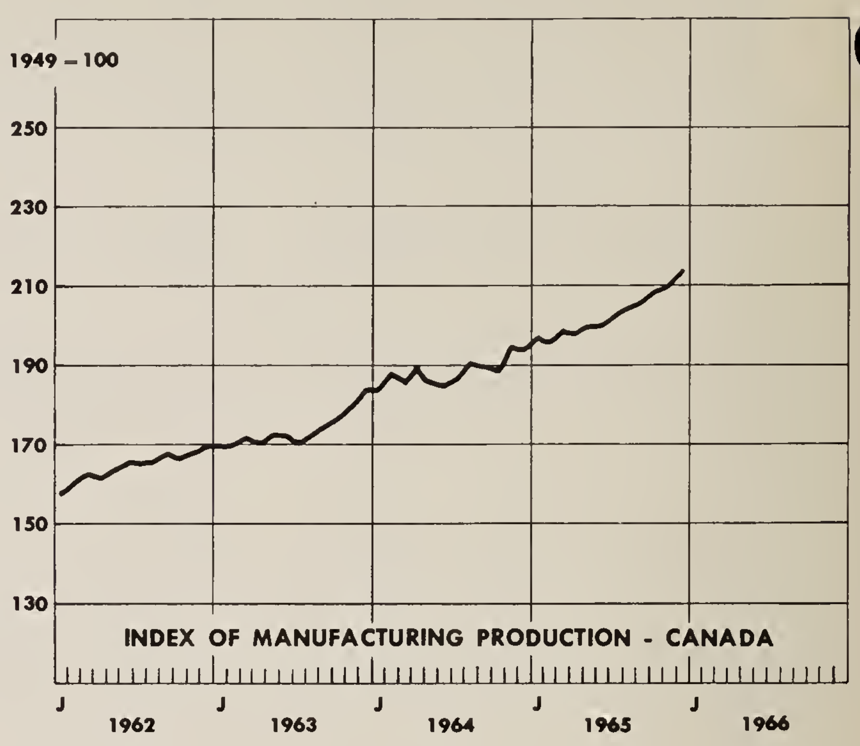
ONTARIO ECONOMIC INDICATORS - SEASONALLY ADJUSTED

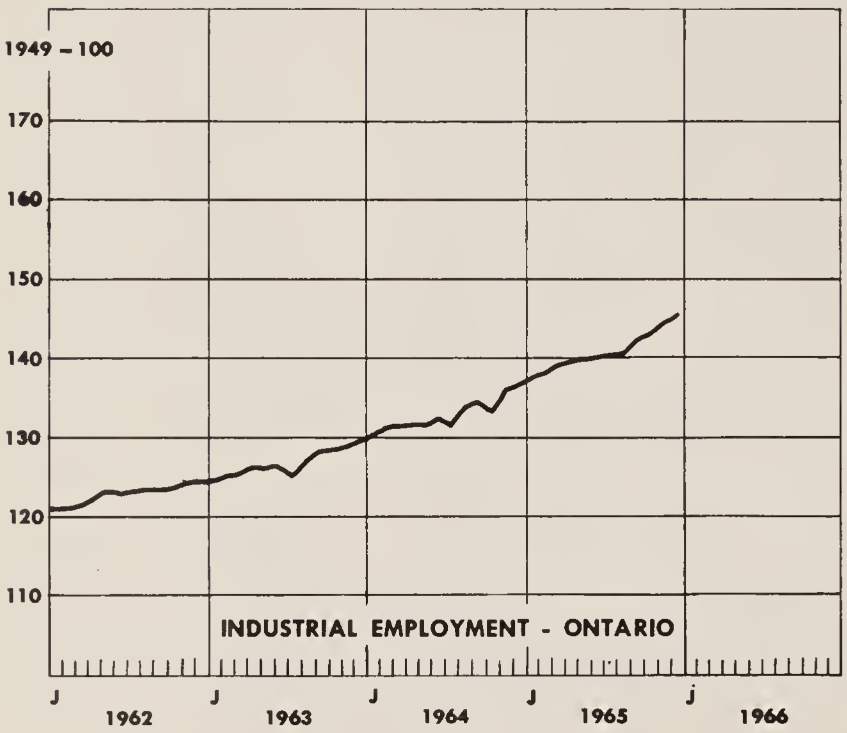
(* Figures for Canada)

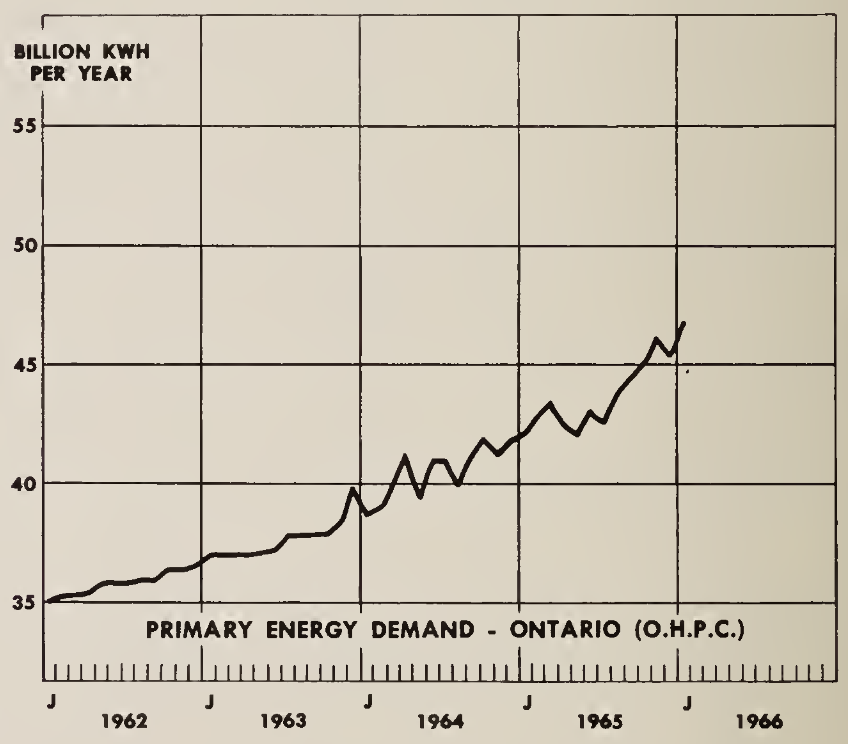
		1964	1965												1966
LEADING INDICATORS		Dec.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
Average Weekly Hours Worked in Manufacturing	(No.)	41.1	41.0	40.3	41.7	41.5	41.0	41.3	40.8	40.9	40.7	41.1	41.4		
New Dwelling Unit Starts	(No.)	5,138	4,107	5,815	5,353	3,848	5,010	5,806	4,770	7,377	4,464	3,764	4,708	4,634	5,805
Business Failures	(No.)	78	90	77	130	67	87	65	63	83	79	70	71	69	72
Business Failures -Liabilities	$ Million	2.1	3.4	10.3	8.9	4.0	5.3	4.6	4.0	20.7	9.5	2.6	3.4	3.2	4.9
New Orders in Manufacturing*	$ Million	2,780	2,684	2,793	2,870	2,827	2,834	2,829	2,849	2,909	2,897	3,005	3,014	3,146	
Housing Contracts	$ Million	62.5	67.9	48.1	57.9	67.3	53.7	70.9	76.2	59.1	44.3	56.6	68.9	51.9	46.4
Business, Industrial and Engineering Contracts	$ Million	117.9	113.5	80.3	143.9	109.3	117.9	135.9	127.8	115.0	155.7	98.1	87.6	125.8	101.8
Money Supply*	$ Million	17,645	17,855	18,065	18,289	18,557	18,683	18,716	19,172	19,639	19,654	19,786	19,747	19,770	19,760
T. S. E. Index - 77 Stocks	1956 = 100	165.6	170.9	172.8	170.7	171.1	169.5	163.0	163.9	166.8	171.4	174.2	167.7	168.1	171.2
COINCIDENTAL AND LAGGING INDICATORS															
New Dwelling Unit Completions	(No.)	3,236	3,667	3,727	8,392	7,115	4,518	4,019	2,153	4,075	3,269	2,830	3,825	4,570	5,553
Average Hourly Earnings in Manufacturing	$	2.15	2.19	2.20	2.23	2.23	2.22	2.23	2.23	2.23	2.26	2.28	2.29		
Gross National Product*	$ Million	48,016			49,908			50,880			52,056				
Cheques Cashed in Clearing Centres	$ Million	3,765	3,773	3,869	3,981	4,127	4,211	4,097	4,184	4,634	4,287	4,313	4,363	4,526	
Retail Trade	$ Million	624	617	631	641	659	672	665	672	669	667	694	703	697	
Labour Force	000's	2,566	2,614	2,592	2,590	2,594	2,607	2,626	2,626	2,642	2,608	2,605	2,621	2,641	2,675
Employed	000's	2,491	2,542	2,524	2,531	2,522	2,536	2,548	2,556	2,574	2,541	2,556	2,562	2,582	2,612
Unemployed	000's	75	72	68	59	72	71	78	72	68	67	49	59	59	63
Unemployed as % of Labour Force	%	2.9	2.8	2.6	2.3	2.8	2.7	3.0	2.7	2.6	2.6	1.9	2.3	2.2	2.4
Wages and Salaries	$ Million	808	825	823	843	849	854	861	868	874	889	895	908	918	
Industrial Employment	1949 = 100	136.8	137.9	138.2	139.3	139.8	140.1	140.5	140.7	140.9	142.5	143.3	144.8	145.7	
Total Industrial Production*	1949 = 100	221.1	224.3	223.1	226.7	225.5	225.4	225.9	228.5	232.4	234.4	236.4	239.5	242.2	
Total Manufacturing		194.4	197.2	195.9	199.4	198.2	200.3	200.2	203.1	204.8	206.2	209.4	210.3	214.0	
Non-Durables		192.7	191.4	189.8	188.9	189.3	193.2	190.9	194.6	195.8	197.5	200.3	200.1	203.4	
Durables		196.4	203.9	203.1	211.8	208.6	208.5	211.1	213.1	215.4	216.2	220.0	222.3	226.5	
Mining		338.1	348.3	343.3	347.5	348.7	332.7	336.9	339.3	354.8	360.6	340.6	362.2	363.3	
Electric Power and Gas Utilities		434.1	429.6	437.4	441.8	435.8	431.8	433.5	431.6	449.8	454.5	480.6	483.5	471.3	
Primary Energy Demand (Annual Rate)	BKWH	41.72	42.13	42.86	43.46	42.52	42.14	43.06	42.59	43.67	44.51	44.98	46.11	45.50	46.71
ECONOMIC INDICATORS NOT SEASONALLY ADJUSTED*															
Domestic Exports	$ Million	714.1	569.1	538.3	685.5	645.0	745.7	717.6	770.4	685.7	701.0	772.0	897.3	795.5	
Imports for Consumption	$ Million	656.0	559.5	551.0	729.9	698.2	737.0	795.0	732.4	660.6	725.0	763.7	895.1	791.5	
Foreign Exchange Reserves	US $ Million	2,674	2,668	2,649	2,554	2,567	2,499	2,480	2,492	2,598	2,614	2,644	2,681	2,665	2,562
Prices, Industrial Materials	1935-39=100	256.2	256.7	255.3	256.3	256.6	258.5	260.4	259.5	260.9	260.4	259.3	259.4	261.3	265.4

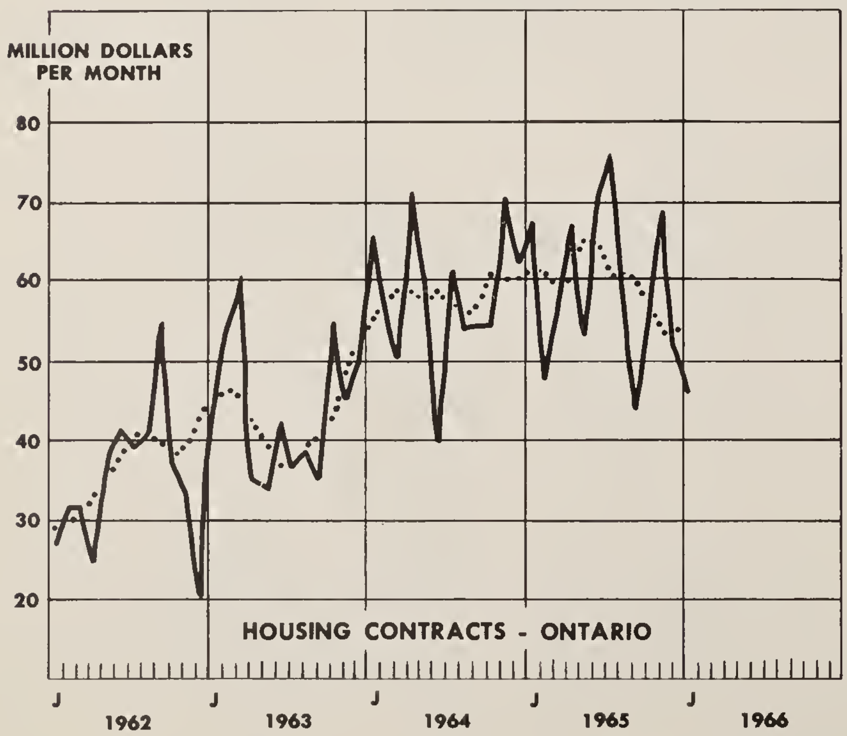
ECONOMIC INDICATORS–SEASONALLY ADJUSTED

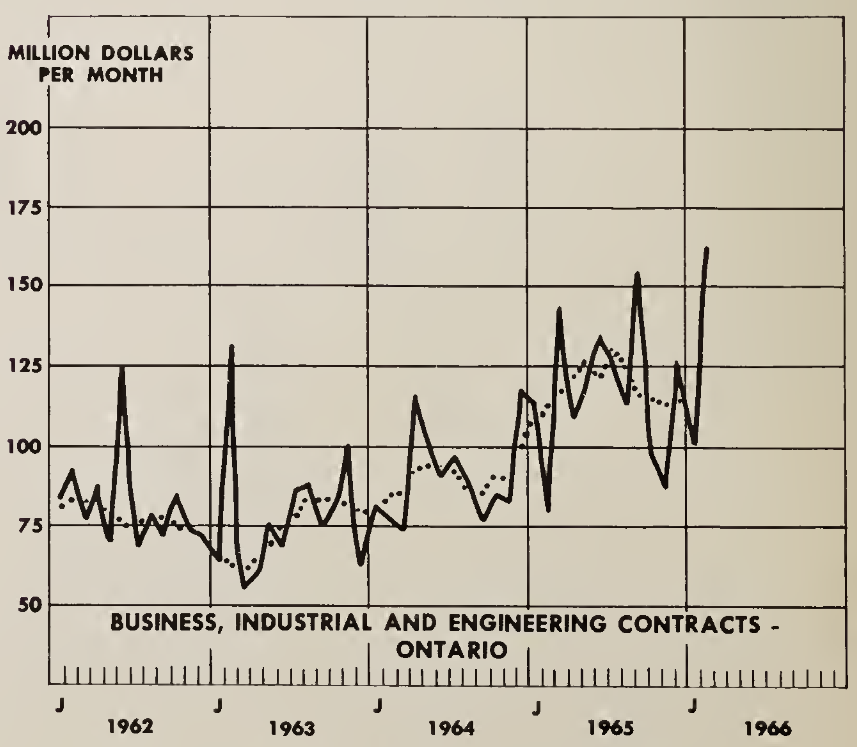








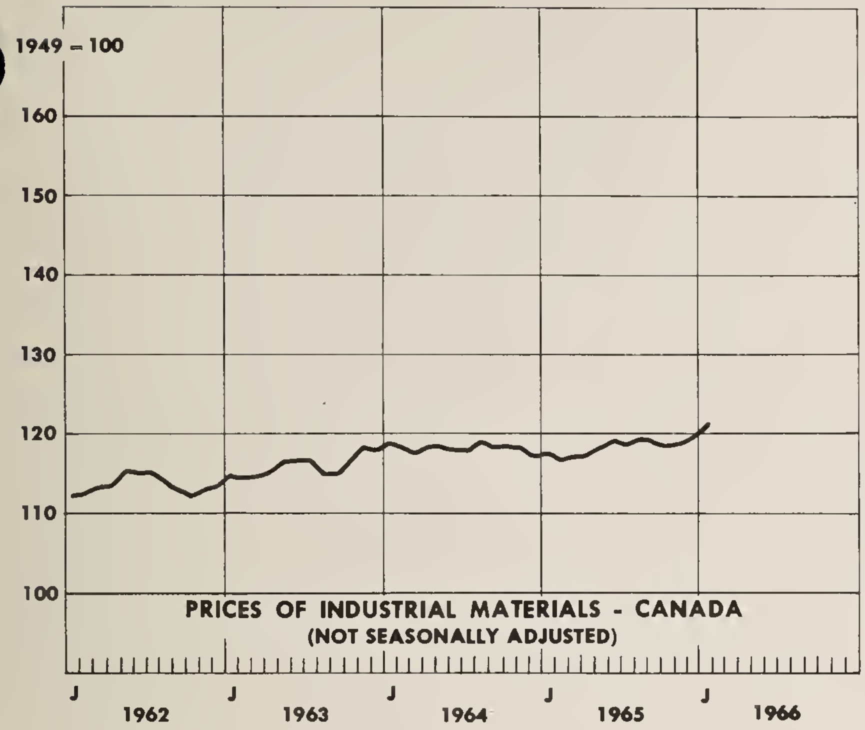


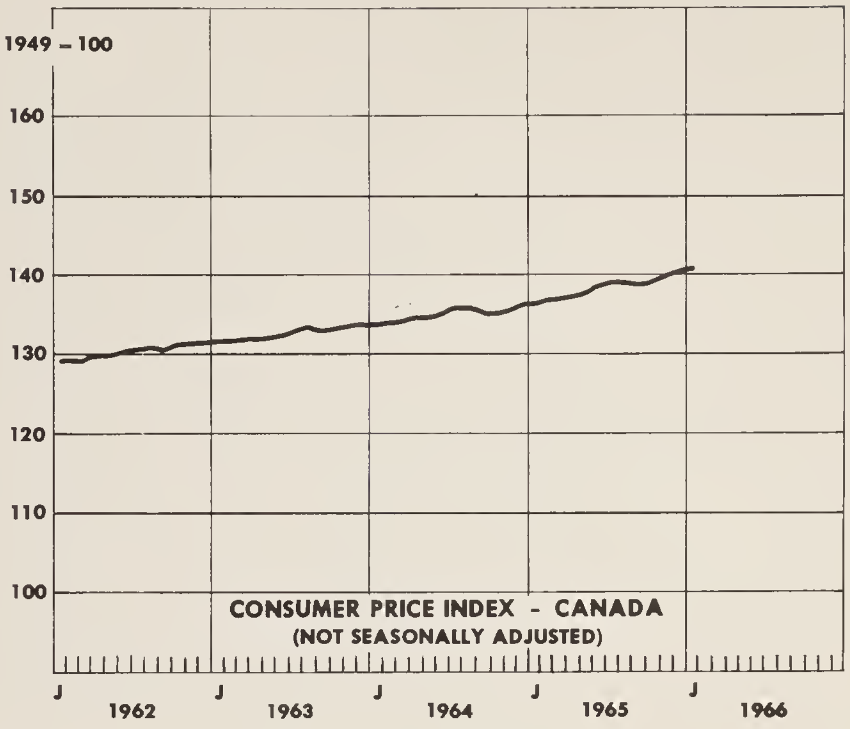


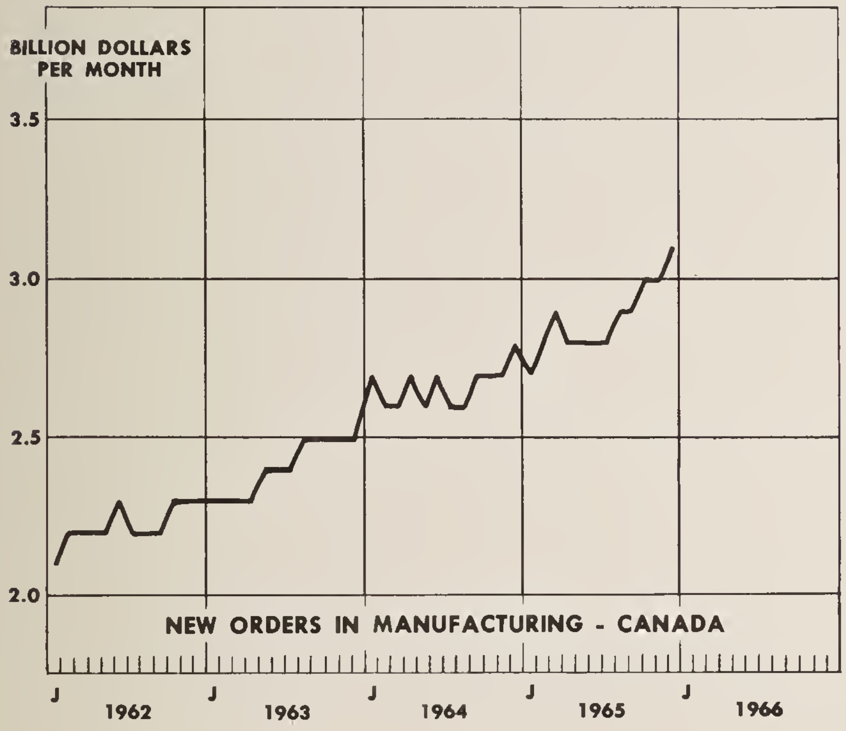
······· TREND CYCLE

——— SEASONALLY ADJUSTED MONTHLY FIGURES

ECONOMIC INDICATORS–SEASONALLY ADJUSTED


PRICES OF INDUSTRIAL MATERIALS - CANADA
(NOT SEASONALLY ADJUSTED)


CONSUMER PRICE INDEX - CANADA
(NOT SEASONALLY ADJUSTED)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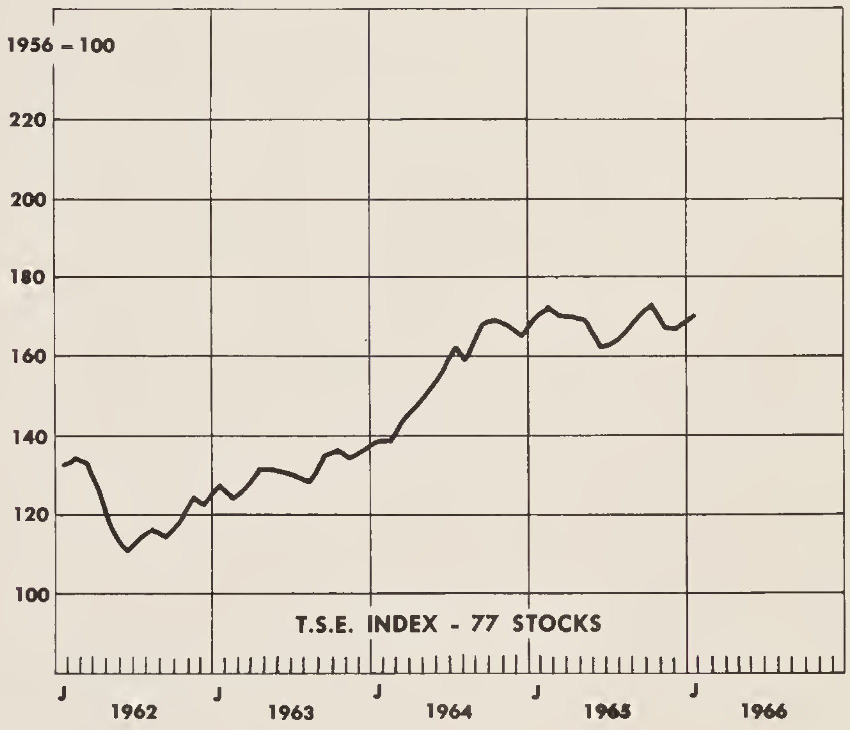
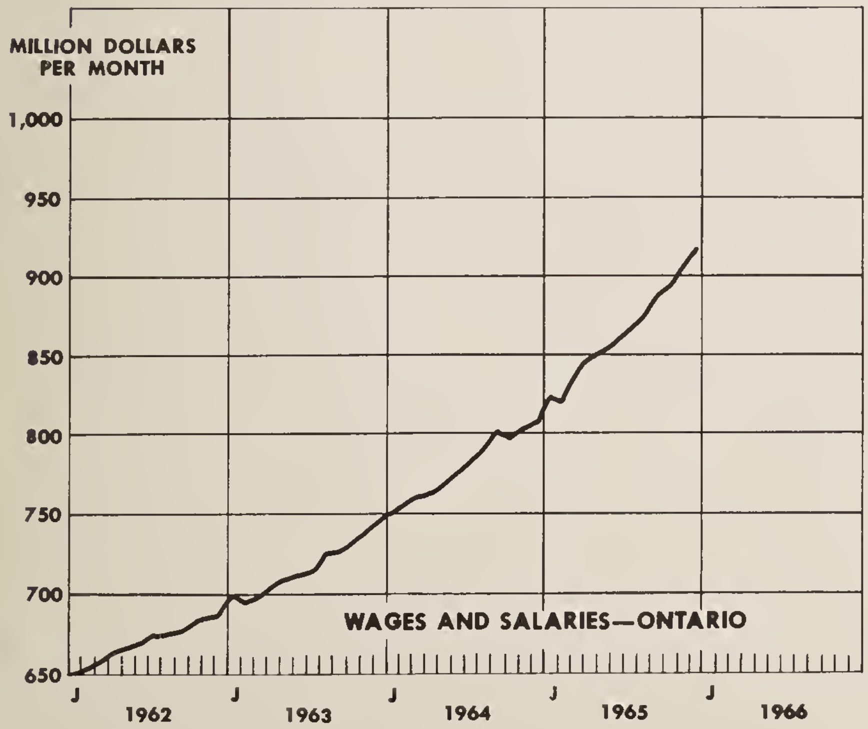
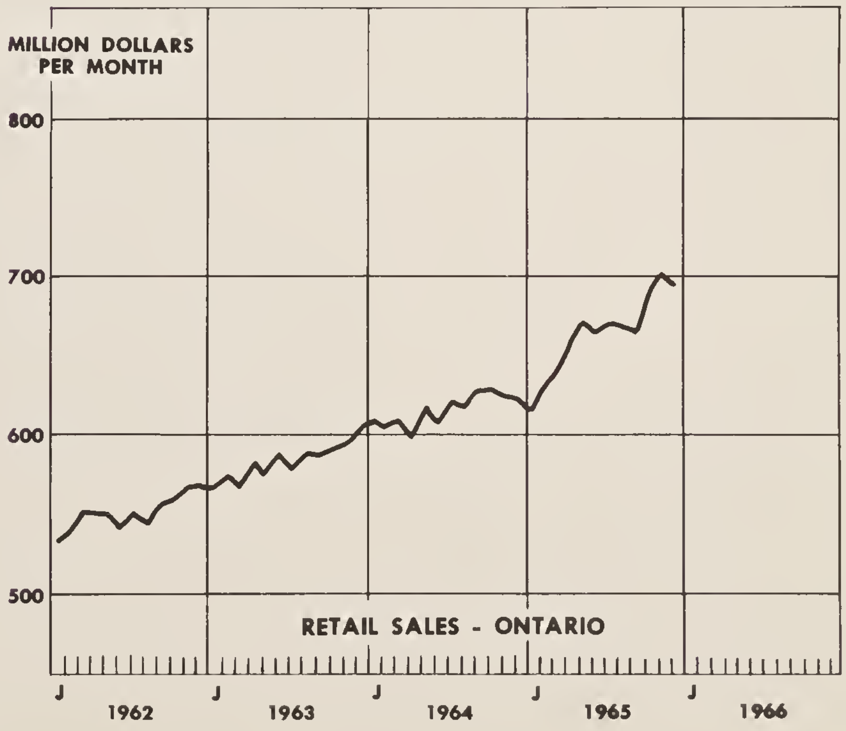

T.S.E. INDEX - 77 STOCKS


WAGES AND SALARIES—ONTARIO


RETAIL SALES - ONTARIO

The Ontario Economic Review *is prepared and edited monthly in the Economic Analysis Branch of the Department of Economics and Development and is available free of charge. The review is intended to provide current information on economic activity in Ontario and to act as a forum for the results of research in the public service on matters affecting the Ontario economy. The signed articles reflect the opinions of their authors and do not necessarily represent the views of the Economic Analysis Branch. All correspondence should be directed to the Editor,* Ontario Economic Review, *Economic Analysis Branch, Department of Economics and Development, 950 Yonge Street, Toronto 5.*

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DEPARTMENT OF ECONOMICS AND DEVELOPMENT

Hon. Stanley J. Randall, Minister

Stuart W. Clarkson, Deputy Minister

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THE ONTARIO ECONOMY

Employment

The Ontario labour force rose to 2,686 thousand in March, an increase of 3.7 per cent over March 1965. At the same time the number employed reached 2,629 thousand – 3.9 per cent more than twelve months earlier. The rate of unemployment – 2.1 per cent – was lower than at any time since 1953.

On a month-to-month basis the size of the Ontario labour force was up 14 thousand from the February level of 2,672 thousand; employment was up 17 thousand from a level of 2,612 thousand. The rate of unemployment in February had been 2.2 per cent – itself the lowest for that month since 1953.

A more detailed breakdown for February indicates that high levels of production were largely responsible for the low rate of unemployment. Some industries were seasonally slack and several industries were affected by the trucking strike, but there were relatively few lay-offs.

Many industries complained of serious shortages of skilled workers. As a result several firms were considering on-the-job training programs. Skilled workers were needed in ship building, heavy electrical machinery and household electrical appliances. There was also a demand for printers, die cutters, skilled machinists, sheet metal workers and auto and diesel mechanics. The garment and leather industries reported shortages for sewing machine operators and stitchers.

Continuing high production was reported in most of the manufacturing industries, with the iron and steel, chemical, rubber, leather, paper, and textiles industries operating at full production. The planned expansion of the Chrysler Corporation's Windsor plant promised to create 1,500 jobs.

Activity in fishing, canning, dairy products and carbonated beverages was slow, with wholesale and retail trade seasonally slack too. The construction industry was slowed both by bad weather conditions and the trucking strike. Shortages of production materials, caused by the strike, led to temporary lay-offs in industries such as hardware and tool products, heating and electrical apparatus, and motor vehicle parts.

Consumer Prices

The Consumer Price Index for Canada rose 0.2 per cent to a level of 142.4 in March (based on 1949 = 100). Increases of 0.7 per cent in the clothing component and 0.6 per cent in the food component were the major factors. Widespread price increases in wearing apparel, and laundry, dry cleaning and shoe repair services put the clothing index up to 124.2, while increases in the prices of bread, eggs, most cuts of meat and certain fruits and vegetables – outweighing declines in sirloin and round steak, chicken, fresh tomatoes, bananas, oranges and instant coffee – brought the food index up to 143.4.

Comparing the March figures for 1965 and 1966, there has been an increase of 3.7 per cent in all items of the Index. By far the most important factor has been the 7.6 per cent increase in food, an increase general throughout all of Canada and the United States. Clothing and transportation increases of 3.2 per cent 3.0 per cent ranked second and third. Health and personal care was next at 2.7 per cent, followed by housing (2.2 per cent), recreation and reading (2.1 per cent) and tobacco and alcohol (1.2 per cent).

Bank of Canada Annual Report

The Canadian economy experienced a sharp rise in aggregate demand and employment in 1965 which could lead to "overloading" the economy if productivity performance is not improved.

Louis Rasminsky, Governor of the Bank of Canada, stated in his annual report to the Minister of Finance that the increase in demand was a major factor influencing the monetary policy of the Bank. Its policy was geared to ensuring that excessive demand would not lead to inflationary pressures. On the other hand, the report stated, the failure of the

Atlantic Acceptance Company had exerted pressure in the opposite direction, making it necessary for the Bank to take action to ensure sufficient liquidity for the maintenance of confidence in the financial system.

Another factor which influenced monetary policy was the United States guidelines policy, designed to eliminate the deficit in its international balance of payments. The initial impact was to encourage repatriation of U.S. short-term financial assets held in Canada by United States corporations. However, this was offset by the inflow into Canada of banking funds from overseas.

The Bank believes that productivity could have been better in 1965. It therefore emphasized the need for policies designed to strengthen the "supply side" of the economy. In particular, productivity could be improved by putting into use the resources of high-unemployment areas.

It further stated that Canada must endeavour to increase its ability to compete effectively with foreign producers and thus reduce dependence on net capital inflows. Although Canada needs to import a great deal of capital to maintain high levels of consumption and investment, it has no "inherent right" to import capital; for there are conflicting claims on the resources of capital-exporting countries. Canada should thus aim to reduce this dependence by fully utilizing its own resources. This would involve maximizing productivity and industrial efficiency including educating the rapidly expanding labour force.

In 1965 the sources of growth were an increase in the labour force and an improvement in productivity due to high investment in plant and equipment. Unemployment was reduced to 3.5 per cent — the lowest since 1956; in fact, there were shortages of skilled and professional labour. While costs and prices were up, there was still an increase of 6.5 per cent in real output.

The major problem for the economy was the need to maintain the existing high level of demand, while being alert simultaneously to the dangers of excessive demand. Excessive demand could conceivably outrun the productive capacity and lead to over-loading the economy. During 1965, as the economy moved towards full utilization of resources, the heavy demand for funds was reflected in the Bank's policy with regard to credit conditions. The yield on Government bonds rose from 5.0 to 5.4 per cent.

The assets of the chartered banks rose by 12 per cent in 1965 compared to an increase of 5.25 per cent in 1964. Consumer credit outstanding increased by about 15 per cent. Capital inflows into Canada rose from almost $800 million to about $1,300 million. In December, the Bank Rate of 4.25 per cent was raised by 0.5 per cent to offset an increase of 0.5 per cent in rediscount rates in the United States.

For the second successive year the rate of growth of the economy exceeded that of the United States. This high rate of growth was reflected in increased farm output, an 11 per cent increase in labour income, a 10 per cent rise in corporate profits, and a more-than-7.5 per cent increase in consumer expenditure.

In international trade Canada experienced a large increase in imports — they grew more rapidly than domestic output. Non-wheat exports, on the other hand, rose only moderately, mainly because of slackened economic growth in some of Canada's major overseas markets.

Federal Budget — 1966-67

In his first budget, presented to Parliament on March 29th, 1966, Finance Minister Mitchell Sharp introduced measures aimed at containing the rate of economic expansion in the Canadian economy so as not to strain existing resources. To slacken the rate of growth of demand, several tax changes were introduced to moderate expenditures by both consumers and the business community.

The 10 per cent tax reduction of the last fiscal year was removed and replaced by a 20 per cent reduction — limited to a ceiling of $20 — applicable to low income earners. However, for six out of 10 taxpayers — that is, those earning average or above average incomes — taxes were to increase as of June 1st.

A married man with two dependents would have to earn $4,000 or less to benefit from the tax reduction.

A new measure to ease business spending and create forced saving was a special temporary tax on corporate profits in excess of $30,000. Starting in May, corporations with an earning base over this amount will have to pay five per cent into a special fund in monthly payments. The money would be held in a special account by the Government of Canada and would be refunded — with five per cent interest — in 18 to 36 months, depending on economic conditions during that time.

Federal Government sources expected that about 100,000 out of 116,000 firms would not be affected because of the minimum earning base of $30,000. In the first year of collections the fund would acquire $250 million, building up to $375 million in the whole 18 month period.

Another inducement to delay expenditure was the announcement that the present 11 per cent sales tax on production machinery and equipment (but not on building materials) would be reduced to six per cent on April 1st, 1967 and would be eliminated entirely one year later. There was also to be an immediate elimination of the 11 per cent sales tax on certain limited types of production machinery and equipment.

Changes in capital cost allowances were made to further achieve a moderation in business reinvestment.

The Minister of Finance also asserted that to help achieve these objectives, Federal departments would postpone 10 per cent of their planned construction in the 1966-67 fiscal year.

Based on estimated revenues of $8,300 million and expenditures of $8,450 million, the budgetary deficit for the fiscal year 1966-67 was expected to be a relatively small $150 million. In the fiscal year 1965-66 it was an even smaller $34 million, based on revenues of $7,673 million and expenditures of $7,707 million.

THE DEVELOPMENT OF ONTARIO'S TEXTILE INDUSTRY

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Important and interesting: these are two adjectives that fittingly describe Ontario's textile industry.

To describe the industry as the driving force in the provincial economy would be wrong. There are other industries which contribute more to the economy, others which are larger and produce a greater dollar value of goods. Yet the textile industry is important in that it provides employment for large numbers of individuals, and in some cases is the mainstay of smaller urban centres.

It is interesting because of its varied history, having experienced years of disappointment and years of success; interesting, too, because it has faced — and still faces — the stiff competition of imported textiles, which are among the more significant of Canada's imports.

The following is an attempt to trace the development of textile manufacturing in Ontario, pointing out some of the problems confronting the industry both in the past and in the present.

There are basically three major components making up the industry as it is pictured here: the users of wool, cotton and man-made fibres. All three help to meet the textile requirements of Canadians — among the largest *per capita* consumers of textiles in the world. The yarn, fabric and cloth which they produce go on to become the basic materials for the manufacture of clothing, knitted goods, carpets, industrial goods and a wide variety of other products.

Textile mills in Ontario — second only to Quebec in total textile output and employment in Canada — have been important employers of both skilled and unskilled labour for well over a century. This has been particularly so among the smaller communities along the St. Lawrence River and in the Ottawa and Grand River Valleys where the industry has tended to locate. Often these mills, serving as the principal source of employment, have been the focal points around which small urban centres have evolved. In 1871 over 4,500 employees (or about five per cent of the manufacturing labour force then in Ontario) worked in Ontario woollen and cotton textile mills. By 1965 there were approximately 22,300 workers(1) in the province producing wool, cotton and man-made textiles — just under four per cent of Ontario's manufacturing labour force.

Yet the industry — both in Ontario and Canada — has not always enjoyed good fortune throughout the past century. Periods of rapid growth have given way to periods of stagnation. Only recently did textile producers come out of a serious slump during which recovery was thought to be all but impossible. The reasons behind its declining fortunes have varied: at the end of the American Civil War it was because of the loss of United States markets; in the 1950's it was because of the failure to remain competitive with imported textiles. In the latter case, admittedly, the task was a difficult one. Producers in the United States were highly mechanized and efficient. In addition they enjoyed the benefit of a large domestic market, enabling them to have longer production runs and greater economies of scale. Asian producers had the advantage of very low wages, particularly in the case of relatively labour-intensive woollens and cottons.

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(1) Estimated by the Canadian Textiles Institute. Figure excludes knitting mills.

Another aspect of the development of Ontario textiles is the fact that, while other manufacturing industries have been expanding and growing relatively more significant in the province, this industry has declined in relative importance. In 1870, wool cloth making — the most important sector of the textile industry at the time — was the seventh largest manufacturing group in Ontario, with a total product value of over $4.5 million; in 1961 the most important textile producers — synthetic textile mills — ranked a distant twenty-ninth, with factory shipments valued at $111.1 million. This does not necessarily reflect inherent weakness in the Ontario textile industry as compared with textiles elsewhere. Instead it is a long-run trend, characteristic of industries manufacturing the basic necessities of life in expanding industrialized economies. Expansion in these industries is more closely related to population expansion than to income growth. Consequently, growth industries — those on which a rising proportion of income is spent as income rises — have supplanted the textile industry in importance. The automotive industry, for instance, is a consumer durables industry which has grown phenomenally in recent decades.

The economic growth in Ontario leading to the relative decline of textiles has had yet another important effect. Along with industrialization and growing productivity have come higher wages. Textile producers, faced with pressures for higher wages and the need to maintain an adequate labour supply, have found it necessary to raise wages correspondingly, keeping them only a certain distance below the industrial average.(2) However, because labour costs play so important a role in the industry's cost structure, different measures have been taken to keep them as low as possible. Producers have tended to remain in rural and small urban areas where wages are generally lower; and they have employed a relatively large percentage of women. To a certain extent this search for minimum labour costs has made Quebec, with its cheaper labour, a more attractive location for textile producers.(3) Ironically, therefore, the flourishing industrial complex of Ontario has in some respects worked against the interests of the textile industry.

Increasing mechanization in textiles is one factor which has partially balanced the restrictive effects of higher wages. While the production of natural-fibre textiles has always been relatively labour intensive, it has become less so over the decades, as producers have made more use of better quality machinery. Given any existing tariff structure, this has been one of the principal ways in which they have been able to compete more effectively with low-priced imported textiles. Synthetic textile production, inherently more capital intensive, has seen a smaller degree of change; yet it too has adopted new methods and better capital equipment. As a result Ontario productivity in textiles has generally kept pace with other countries over the long run.

Synthetic textile producers have also benefited from the extended application of man-made fibres. The creation of new demands for synthetics, particularly for industrial uses, has permitted the industry to grow in spite of the limitations of a relatively small national population. Some of the applications will be touched upon later in tracing the evolution of Ontario's man-made textiles.

DEVELOPMENTS OVER THE PAST CENTURY

Woollen Textiles

Textile production in Ontario actually goes as far back as the days of early settlement in Upper Canada, when coarse wool cloth was made by the pioneer women. Although the finer-quality wool products were imported from the United Kingdom, there was still a need for coarser and more-economical woollen clothing for everyday use. Wool, particularly suitable for the harsh Canadian winters because of its warmth, lightness and resilience, was produced on the family spinning wheel and loom. The women of the household carried out all the steps still followed today: the fleece was washed, oiled, carded, combed, and then spun into yarn; the yarn was then woven, fulled and tented, producing an unfinished fabric. When dyed and sheared this became the finished cloth. This domestic production served the relatively limited needs of each family at that time. In 1842 over 433,000 yards of home-made cloth and 727,000 yards of home-made flannel (soft woollen cloth of loose texture) were produced in Upper Canada.

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(2) In 1965 Ontario "average hourly earnings" for manufacturing industries as a whole were $2.24; for textile producers they were $1.74.

(3) The comparable Quebec figures for "average hourly earnings" in 1965 were $1.89 and $1.58 for overall manufacturing and textile industries respectively.

Throughout the 19th century, as settlement advanced and a more sophisticated economy evolved, organized wool cloth production spread to meet the expanding needs for wool clothing. Custom carding and fulling mills were set up along watersheds, where they had ready sources of both power and water. In most cases they operated in connection with grist mills or sawmills. The sites chosen were also within a reasonable distance of sheep-grazing areas, even though as time went on more and more raw wool — especially of finer grades — was imported from countries such as Australia and New Zealand.(4)

The first mill using power looms was set up in 1820 near Georgetown, Upper Canada (it was later moved to Streetsville). Although Lower Canada and the Maritimes also engaged in wool cloth production, Upper Canada became the major producer during this period. Census records show that in 1848 total production in Upper Canada was 625,000 yards of fulled cloth and 1,300,000 yards of flannel.

With the decline of hand-made cloth came the growth of the factory system, particularly around the middle of the century. Knitting mills were opened, first at Galt in 1854, then at Ancaster in 1859, at Paris in 1870, and at Cobourg and Carleton Place.(5) Gradually, custom mills gave way to larger mills which made better use of the division of labour through the application of their advanced equipment and techniques. At the same time a wider and wider range of better-quality goods was produced.

In general the influences affecting woollen textile production were from that time onward the same as those affecting cottons. As such the development of these two branches of the textile industry has been somewhat parallel. Nevertheless, the growth of cotton textiles was to some extent at the expense of woollens. Cotton provided a cheap yet adequate substitute for coarse Canadian woollens, so that by the end of the century Canadian production of cottons exceeded that of woollens. Furthermore, the remaining demand for woollens tended to shift more and more to fine-grade, higher-quality woollens which Canadians were unable to produce. Consequently employment in Ontario woollen mills, as a percentage of total Ontario textile employment, fell from about 90 per cent in 1871 to slightly over 60 per cent in 1901. Wool cloth producers dropped from the seventh most important industrial group in Ontario (in value of product) to fifteenth. Over the years Ontario has remained the leading wool textile producer in Canada, although its lead has been reduced as Quebec's textile production has expanded.

Cotton Textiles

As in the case of woollens, the appropriate site for the large-scale manufacture of cotton textiles was at the source of power, water and raw materials (proximity to markets was also desirable if not essential). In Canada the regions bordering the St. Lawrence River and Lake Ontario best filled these requirements. The area around Montreal was especially suitable, with the basic raw cotton — imported from the Southern United States — coming directly in by water route. (In part this explains why so great a portion of the Canadian cotton textiles group has located in this area of Quebec.) However, cotton textile plants have also located in Ontario, especially in the Toronto and Hamilton areas.

The production of cotton in Upper Canada first began in 1847 when a mill with about 20 looms was set up at Thorold. Using cotton imported from the Southern United States, it undertook to produce grey sheetings and cotton batting. In 1860 a larger-scale mill with 12,000 spindles and 260 looms went into operation at Merritton, and one year later another was opened at Dundas.

The American Civil War proved to be a great boon to both cotton and wool manufacturers in Upper and Lower Canada. The conflict across the border produced so severe a paralysis in cotton manufacturing in the Northern States that it was thought American producers would never be able to regain their once powerful position. Canadian producers, facing an expanding market with limited competition, greatly increased their capacity over the period from 1860 to 1865. Thus cotton and wool cloth production rose dramatically, and large amounts of capital were poured into the industry.

As it turned out, the expectation that the United States would not recover from the economic dislocation of the war proved to be unfounded. The large American markets upon which the Canadian producers had depended shrank as American textile producers regained their lost vigour; prices fell, and the growth of Canadian textile production was halted. So severe was the impact of American industrial recovery that new high tariffs were imposed to safeguard the development of Canadian manufactures.[6] In 1879 the duties on cotton goods were increased from 17.5 per cent to a range of 20 per cent to 30 per cent. Even these measures, however, were for a time incapable of rectifying the problem which had arisen. Having anticipated a much larger demand for cottons, most Canadian manufacturers had invested in mills producing goods of the same class. Consequently expansion ceased for over a decade, and even by 1882 Canadian mills were capable of supplying enough of the common class of cottons to meet the needs of a population twice that of Canada. Only by 1890, after some manufacturers had either abandoned their property or imported new machinery to diversify their products, were Canadian mills capable of producing a wide range of goods.

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(4) Canadian wool was not always usable, both because it was limited to coarser grades and because it contained a sprinkling of black fibres. The latter factor prevented its use for light-coloured materials.

(5) Yet while production became more mechanized, the distribution system still followed the lines of a barter economy. Salesmen visited farms, trading cloth for wool, grain or other farm produce — seldom did money actually enter into the transaction.

This development, in turn, had the effect of creating many separate production units, each attempting to produce every kind of fabric. To permit specialization and avoid inefficiency due to constant loom and machinery changes, a number of firms in the industry amalgamated. This first step in 1892 was soon followed by others in 1902, 1905 and 1910, as the activities of more and more mills were consolidated. The result was increased efficiency, better wages and lower prices.

The steady advances of cotton textile manufacturers continued until the outbreak of World War I, when a period of inactivity set in among Canada's 26 cotton mills. Toward the end of the war, however, extensive war orders together with the elimination of overseas competition led to record volumes of production and employment. By 1920, Canadian production was valued at $92.5 million, and employment numbered 17,625. Rated capacity was 21,754 looms and 1,057,000 spindles. In general, the growth of cotton textiles during the 1920's was impressive. However the depression years of the 1930's brought a sharp decline, one which persisted until the stimulus of war orders was felt in the early 1940's. At the same time, the introduction of synthetic textile production in Ontario brought about a slight relative decline in the popularity of cotton, somewhat in the same manner as cottons had affected woollen textiles earlier. Henceforward the role of cotton in Ontario's textile industry was to decline.

The introduction of synthetic textile production in Ontario led to an essential change in the nature of the textile production. The basically labour-intensive cotton and woollen textile industries increasingly gave way to the more capital-intensive synthetics production until synthetics became the most important part of Ontario's textile industry.

Man-Made Textiles

Synthetic textile production, unlike that of wool and cotton, is relatively new to Canada, having been established only in 1925. Since man-made fibres possess many of the qualities of natural fibres in addition to several superior characteristics — and low cost — the demand has grown over the past few decades until it has begun to approach cotton textiles in popularity. The fact that most of the raw materials come from such abundant resources as wood, coal, natural gas, and water — all available in Canada — has given synthetic textile producers relatively stable prices. Cottons and woollens, on the other hand, have been largely dependent upon imported raw materials, and consequently have been subject to external price influences.

Rayon

The Canadian production of viscose rayon (or "artificial silk") first began in 1925 at Cornwall, on the St. Lawrence River. A plant was set up to convert chemically the cellulose of spruce wood pulp and cotton linters into a liquid viscose solution which was then pumped through spinnerets and chemically solidified. The location afforded easy access to the raw materials and chemicals, which were almost exclusively Canadian in origin. The plant was also conveniently close to markets where its products — viscose textile yarn, staple fibre and tire yarn — would be consumed. A variant, acetate rayon — made by combining acetic acid with cellulose and then dissolving it with acetone — was first produced in Quebec.

Nylon

Ontario was the first Canadian province to introduce the partial production of nylon. A plant at Kingston, opened in 1942, produced nylon filament yarn by entirely chemical processes. Most of the plant's production at first went to the war effort for use in parachutes and shock cords for nylon tows, and, by the end of the war, the plant was producing 100,000 pounds of nylon monthly.

The complete production of nylon, involving a series of complicated chemical processes, was not all carried out in Canada initially. Basically, the production of nylon involves the combination of nitrogen and oxygen from the air, hydrogen from water and benzene from coal tar (benzene can be replaced with a petrochemical). The first step in their chemical interaction is the formation of nylon salt, followed by its conversion into solid nylon flake. The flake is then melted and pumped through a spinneret to form filaments, which are then twisted together to form a yarn. Originally, nylon flake was imported; but by 1947 the Kingston plant possessed the facilities to undertake the production of the flake from imported nylon salt. By 1951 the plant was able to manufacture the salt from imported intermediates or basic chemicals — hexamethylene diamine and adipic acid. The entirely Canadian production of nylon commenced in 1953, when a plant producing the main intermediates was built at Maitland, Ontario.

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[6] Admittedly, other factors were important — such as nationalism and the need for revenue to finance the transcontinental railway.

Thus by 1953 the production of synthetic textiles in Ontario was firmly established: the proximity to the sources of water, power and the petrochemical raw materials made this region of Ontario the ideal location in Canada for such an industrial operation. In addition the markets and clothing industries of Toronto and Montreal were nearby.

The Kingston plant has not restricted its production solely to the needs of the clothing industries. Included among its manufactures are nylon continuous-filament yarns, tire yarn, staple fibre and Tynex nylon monofilament — all of which are sold to manufacturers of hosiery, apparel and industrial textiles, tires, brushes, sporting goods and plastics.

Terylene

Another synthetic textile produced in Ontario is Terylene, known as Dacron in the United States. This fibre, like other synthetic fibres, is manufactured in two distinct forms — the silky filament yarn and the wool-like staple fibre. Its applications include clothing, draperies, fire-fighting hose, papermaker's felt, ropes, filter fabrics, fish nets, industrial belts, and feather replacement in pillows.

In 1955 a plant at Millhaven, Ontario, began production of Terylene polyester fibre with the intention of eventually satisfying all Canadian requirements for this textile fibre. Terylene, like nylon, involves the application of certain petrochemical ingredients and requires a sufficient water and power supply; thus the region along Lake Ontario provided an appropriate plant site.

Tariffs on Synthetics

Synthetic textiles have enjoyed relatively greater tariff protection than either cotton or wool. In 1930, when synthetic textile production was just developing, and when tariff rates generally were at a peak, the British Preferential and Most-Favoured Nation tariffs on the import of synthetics were 30 per cent and 80 per cent respectively. Imported cotton goods faced duties of 22.5 per cent and 33 per cent, while duties on woollen goods were 50 per cent and 60 per cent. By 1948, after GATT negotiations had led to a revision of tariff rates, duties on synthetics were 20 per cent and 30 per cent, woollens (fabric) 15 per cent and 27 per cent, and cottons 17.5 per cent and 20 per cent. This high level of protection was particularly helpful in establishing synthetic textile production in Canada.

Long-Run Growth of Employment

The histories of the three textiles discussed — wool, cotton and synthetics — show that development has not been smooth, but like that of so many other products has tended to follow a cyclical pattern. Yet over the long run these industries have remained firmly established in Ontario. Employment has increased substantially: in 1871 less than 5,000 people were involved in textile production in Ontario; the number increased to over 13,000 by 1930, and to over 22,000 by 1965. It is true, however, that employment in the once dominant Ontario woollen textiles sector has not shown much progress, with only 4,700 employees reported in 1965. This is understandable when certain factors — such as mechanization, the small, poor-to-medium quality of the domestic wool crop, and the displacement of woollens by cottons and synthetics — are taken into consideration. Employment in cotton textile production, on the other hand, has shown great progress since the 19th century, growing from just a few hundred to 4,600 employees in 1965. Synthetic textiles today are a very important source of employment too: in 1965 about 7,400 employees worked on the production of man-made textiles in Ontario.(7)

RECENT DEVELOPMENTS

The outbreak of World War II — creating a great demand for clothing and other products — had a stimulating effect on domestic producers(8) of textiles. Military requirements provided a fillip which saw total Canadian textile production jump from 174.3 million pounds in 1938 to 311.9 million pounds in 1942. The greatest increase — 87.2 per cent — was recorded in synthetic textiles, which rose from some 16.4 million to 30.7 million pounds. During the same period, cotton textile production rose 79.9 per cent from 119.6 million to 215.2 million pounds; and woollens climbed 81.8 per cent from 36.2 million to 65.8 million pounds. This great increase in demand, after the lean days of the 1930's, was met for the most part by putting all existing equipment into full-time use and by running shifts around the clock. Immediately following this massive effort, however, the falling off of military requirements resulted in a sharp decline. By 1944 total textile production dropped to 254.5 million pounds — a decline of almost 20 per cent from the 1942 figure.

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(7) 1965 employment figures provided by Canadian Textiles Institute. Statistics also show that other textile producers and knitting mills provided employment for 5,600 and 9,500 respectively in 1965.

Fortunately, the industry was buoyed by the post-war demand for textiles, both at home and abroad. War-ravaged countries, normally competitive with Canadian producers, were unable to meet even their own domestic requirements. The devaluation of the Canadian dollar in 1949 also helped textile producers and by 1950 total annual production was up to a record high of 339.7 million pounds.

Problems of the 1950's

Immediately following the relatively good production years of 1950 and 1951, important factors which were to work against Canadian textiles began to exert their influence.

One of the major factors was the development of textile industries in other countries. Many of those which had been damaged in the war were rebuilt and had the latest equipment. From a competitive point of view Canada now faced the textile industries of Japan, India, and other Asian countries, as well as those of the United States and United Kingdom. In its competition with United States producers, the Canadian textile industry suffered from lower productivity — the result of both shorter production runs and generally less-efficient equipment.(9) Against Asian producers it faced the problem of competing in labour-intensive commodities with low-wage countries.(10)

The granting of Most-Favoured-Nation status to Japan in 1954 reduced the tariff on imports from Japan and made it even more competitive in the Canadian market. Similarly, an overvalued Canadian dollar also worked against the Canadian textile producers by giving imported textiles an added price advantage in Canada.

No less important was a change in demand which worked against domestic textile plants. As the post-war years brought prosperity, the demand for more diversified products increased. No longer were people content with limited style changes; instead they insisted on a wide range of products from which to choose. The Canadian textile industry, already suffering from the disadvantages of a small market, was thus being forced to give up whatever limited economies of scale it possessed through single lines and longer production runs. Now product diversification gave an even greater competitive advantage to countries like the United States, which had larger domestic markets.

The combined effect of all these factors resulted in a major set-back for the Canadian industry. The following table reveals the extent to which the volume of production was affected.

CANADIAN INDEX OF INDUSTRIAL PRODUCTION IN TEXTILE PRODUCTS (EXCLUDING CLOTHING)

Year	*Index 1949 = 100*	*Annual % Change*
1951	113.1	
1952	102.9	— 9.0
1953	107.9	4.9
1954	94.3	—12.6
1955	114.0	20.9
1956	117.3	2.9
1957	117.6	0.3
1958	109.9	— 6.5
1959	124.4	13.2
1960	122.5	— 1.5

Source: DBS, *Index of Industrial Production.*

Although 1954 was the worse year, the succeeding years did not appreciably improve the position of the industry.

The cyclical movement of overall textile production was also characteristic of specific textiles. All three textiles — cotton, wool and synthetic — declined or improved more or less at the same time. Yet most of the growth of production was accounted for by synthetic textiles. In 1956 the volume of synthetic textile production was 50 per cent higher than it had been in 1949, while cottons were roughly par with 1949, and woollens were about eight per cent below their 1949 volume.

The impact of import competition — one of the major problems of the industry — is reflected in the percentage of the Canadian market served by Canadian producers. Measuring textile fabric in square yardage, this refers to:

$$\frac{\text{Canadian shipments} - \text{exports}}{\text{Canadian shipments} - \text{exports} + \text{imports}}$$

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(8) Since both the Ontario and overall Canadian textile industries have followed a similar path, references from this point onward will be to the overall Canadian industry unless otherwise stated.

(9) The United States was the acknowledged leader in the efficiency of textile production. In Canada, no really concerted effort to modernize production had been made since the 1920's. Instead the growth of demand had been met in the past by more intensive use of existing equipment. In most cases new equipment was substituted for old only when replacement was essential.

(10) While labour productivity in these countries admittedly was lower, the very low level of wages more than offset this.

Below are the percentages and some of the statistics for the depressed year of 1954.

TEXTILE FABRIC IN CANADA: 1954
(Thousands of Square Yards)

Fabric	*Canadian Shipments*	*Imports*	*Exports*	*Apparent Market*	*% Canadian*
Woollen	26,232	17,985	—	44,217	59.3
Cotton	282,918	137,122	3,371	416,669	67.1
Man-Made	115,420	37,557	1,886	151,091	75.1
Total of Above	424,570	192,664	5,257	611,977	68.5

Source: Canadian Textile Journal Publishing Co. Ltd., *1964 Manual of the Textile Industry of Canada.*

Over 90 per cent of the imported woollen fabric came from the United Kingdom in 1954. The United States, on the other hand, was the major source of imported cottons and synthetics, accounting for 75 per cent and 90 per cent of total imports respectively.

That the period of the 1950's was a devastating one for domestic textile producers is obvious from the fact that, in Ontario alone, 45 mills were forced to close and 7,500 employment opportunities were lost.(11) Throughout the industry profits as a percentage of sales declined considerably.

Alleviation of the serious problems finally began in the early 1960's, following the difficult recession years 1958 and 1960. The change was brought about in part by the industry and in part by external factors.

The Current Revival

The important measures taken by the industry had one objective: to rationalize production and thereby make Canadian producers more competitive. This was made somewhat easier because of the reduced number of firms in the industry — production was now concentrated in fewer but larger mills. To improve their competitive position further, firms undertook vertical integration, extending their production to the manufacture of clothing and other finished products. New capital investment, somewhat erratic during the previous decade, now increased steadily in the first five years of the 1960's. Canadian textile plants increased investment from $27.5 million in 1961 to $108.2 million in 1965. In Ontario alone new capital investment rose from $7.1 million to $66.3 million during the same period. Investment in machinery and equipment accounted for close to 80 per cent of the total in each case, with construction accounting for about 20 per cent.

Yet the benefit of these measures might not have been realized had it not been for favourable external factors. The most important was the devaluation of the Canadian dollar, making Canadian textiles more competitive both at home and in foreign markets. Temporary import surcharges in 1962 further improved the position of domestic producers. Another factor was the voluntary action of the Japanese in imposing quotas on their textile sales to Canada. Expanded demand in the United States contributed by taking up the bulk of American production; this left little production overflow to compete in the Canadian market.

The events of the early 1960's have resulted in a major revival of the textile industry in Canada. At the end of 1965, Canadian employment in the three major groups was 50,000,(12) an increase of 7,200 over 1954. Wool yarn and cloth accounted for 8,727, cotton yarn and cloth 18,687, and man-made textiles (including a small number of silk workers) 22,574.

The extent of the revival is visible in the following table:

CANADIAN FABRIC MARKET: WOOL, COTTON AND MAN-MADE
(Millions of Square Yards)

Year	*Canadian Production*	*Imports*	*Exports*	*Apparent Market*	*% Canadian*
1958	447	296	6	737	60
1959	457	312	8	761	59
1960	440	321	22	739	57
1961	474	341	37	778	56
1962	481	329	25	785	58
1963	523	320	31	812	61
1964(1)	546	368	45	869	58
1965(1)	596	349	55	890	61

(1) Figures provided by Canadian Textiles Institute.
Source: Canadian Textile Journal Publishing Co. Ltd., *1965 Manual of the Textile Industry of Canada.*

Although the industry now holds a smaller percentage of the market than it had held in 1954, it is the significant increases in production and exports that are of great interest. According to the Canadian Index of Industrial Production, the annual growth of textile production has averaged more than eight per cent in the past several years. Figures for the last month of 1965 reveal that, on an individual basis, the wool goods index was 7.7 per cent higher than in December 1964; cotton goods were up 18.3 per cent, and synthetic textiles (and silk) were up 17.7 per cent. Ontario's index for all textiles (excluding clothing) shows increases in 1964 and 1965 of 9.1 per cent and 9.2 per cent respectively.

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(11) Woollen textile plants in particular were hard hit during this period.

(12) Estimate of the Canadian Textiles Institute.

As for exports, the Fabric Market table points out the great expansion which has taken place in just seven years.

Future Prospects

In spite of the remarkable performance of recent years, the textile industry in Canada still faces important problems. In its competition with low-wage countries, the Canadian textile industry has to depend upon quotas in order to obtain an adequate share of the domestic market. As such, quotas remain the key to continued expansion both at home and abroad.

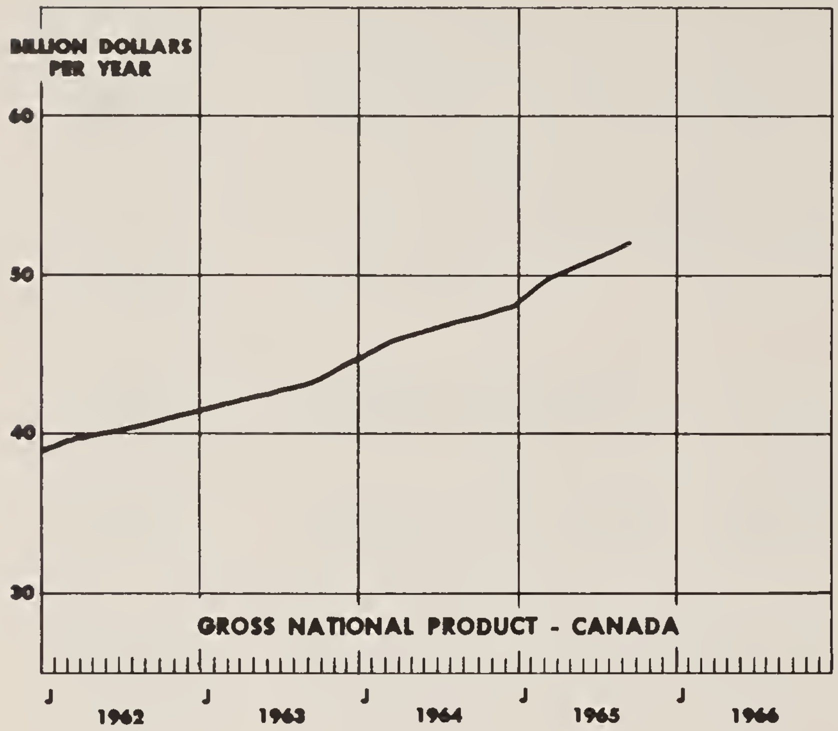
This is not the only problem. By far the most significant competitors of Canadian textiles are the United States producers. They have been able to take up a substantial portion of the Canadian market because of their long production runs, made possible by a large domestic market. From the point of view of the Canadian industry, therefore, tariffs remain a vital and necessary measure if the industry is to have some compensation for this inherent disadvantage.

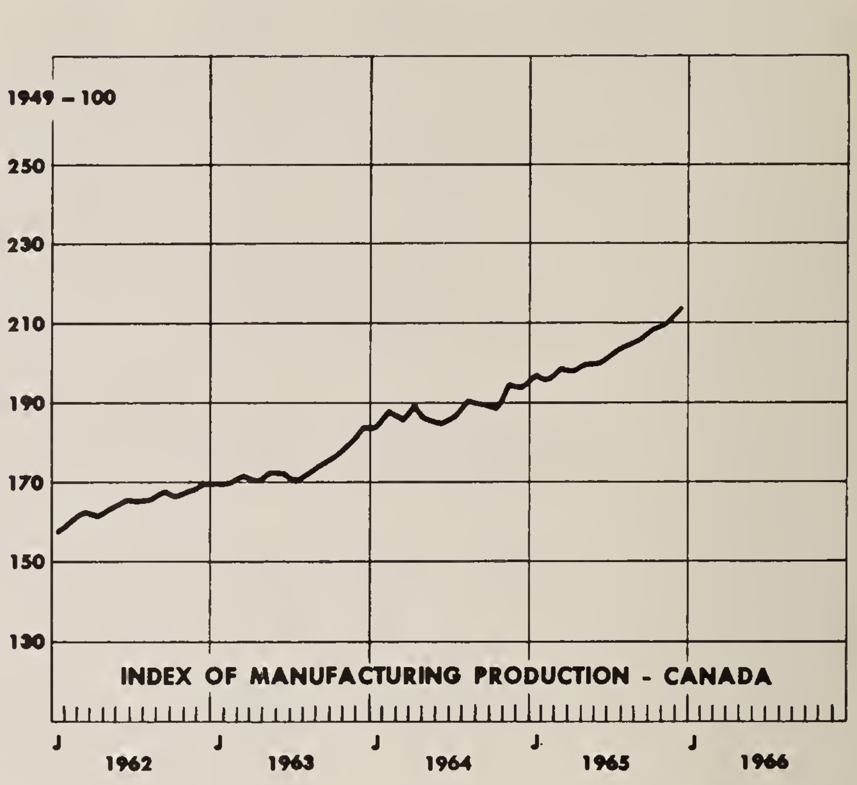
But quotas and tariffs should never prevent an industry from maximizing its competitiveness. With them should come a concerted effort on the part of the industry to improve production techniques, to apply the latest technology and to achieve greater economies of scale. Only in this way will they be justified. At the same time this should conceivably lead Canadian textiles to a more competitive role in world markets.

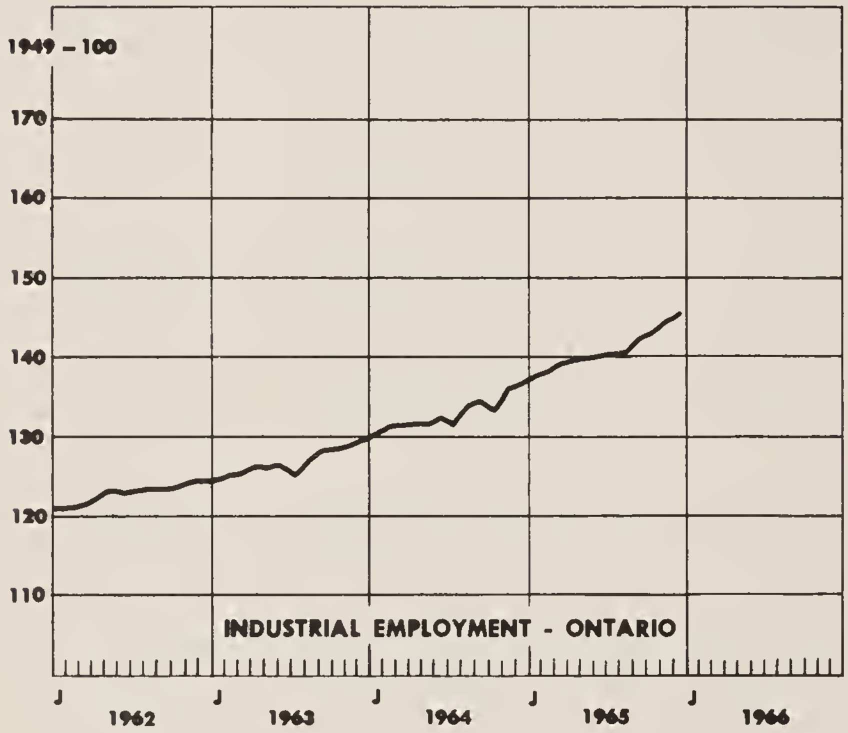
ONTARIO ECONOMIC INDICATORS - SEASONALLY ADJUSTED
(*Figures for Canada)

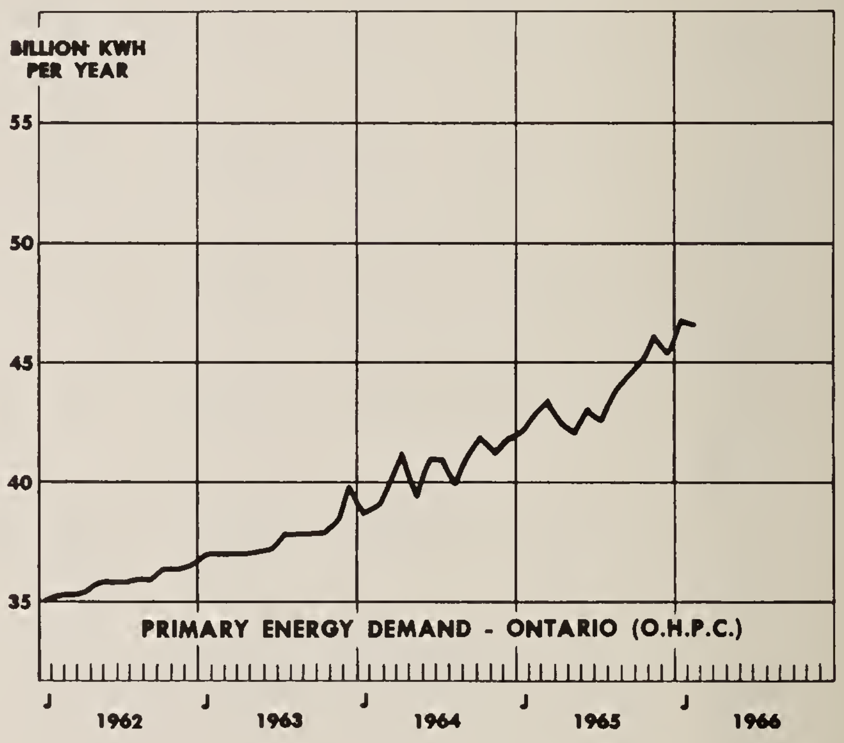
		1965												1966	
LEADING INDICATORS		Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
Average Weekly Hours Worked in Manufacturing	(No.)	41.0	40.3	41.7	41.5	41.0	41.3	40.8	40.9	40.7	41.1	41.4	42.2		
New Dwelling Unit Starts	(No.)	4,107	5,815	5,353	3,848	5,010	5,806	4,770	7,377	4,464	3,764	4,708	4,634	5,805	
Business Failures	(No.)	90	77	130	67	87	65	63	83	79	70	71	69	72	76
Business Failures - Liabilities	$ Million	3.4	10.3	8.9	4.0	5.3	4.6	4.0	20.7	9.5	2.6	3.4	3.2	4.9	7.3
New Orders in Manufacturing*	$ Million	2,684	2,793	2,870	2,827	2,834	2,829	2,849	2,909	2,897	3,005	3,014	3,103	2,987	
Housing Contracts	$ Million	67.9	48.1	57.9	67.3	53.7	70.9	76.2	59.1	44.3	56.6	68.9	51.9	46.4	46.4
Business, Industrial and Engineering Contracts	$ Million	113.5	80.3	143.9	109.3	117.9	135.9	127.8	115.0	155.7	98.1	87.6	125.8	101.8	162.8
Money Supply*	$ Million	17,855	18,065	18,289	18,557	18,683	18,716	19,172	19,639	19,654	19,786	19,747	19,770	19,758	19,814
T.S.E. Index - 77 Stocks	1956 = 100	170.9	172.8	170.7	171.1	169.5	163.0	163.9	166.8	171.4	174.2	167.7	168.1	171.2	169.8
COINCIDENTAL AND LAGGING INDICATORS															
New Dwelling Unit Completions	(No.)	3,667	3,727	8,392	7,115	4,518	4,019	2,153	4,075	3,269	2,830	3,825	4,570	5,553	
Average Hourly Earnings in Manufacturing	$	2.19	2.20	2.23	2.23	2.22	2.23	2.23	2.23	2.26	2.28	2.29	2.26		
Gross National Product*	$ Million			49,908			50,880			52,056					
Cheques Cashed in Clearing Centres	$ Million	3,773	3,869	3,981	4,127	4,211	4,097	4,184	4,634	4,287	4,313	4,363	4,526	4,687	
Retail Trade	$ Million	617	631	641	659	672	665	672	669	667	694	703	697	695	
Labour Force	000's	2,614	2,592	2,590	2,594	2,607	2,626	2,626	2,642	2,608	2,605	2,621	2,641	2,675	2,672
Employed	000's	2,542	2,524	2,531	2,522	2,536	2,548	2,556	2,574	2,541	2,556	2,562	2,582	2,612	2,612
Unemployed	000's	72	68	59	72	71	78	72	68	67	49	59	59	63	60
Unemployed as % of Labour Force	%	2.8	2.6	2.3	2.8	2.7	3.0	2.7	2.6	2.6	1.9	2.3	2.2	2.4	2.2
Wages and Salaries	$ Million	825	823	843	849	854	861	868	874	888	895	908	918		
Industrial Employment	1949 = 100	137.9	138.2	139.3	139.8	140.1	140.5	140.7	140.9	142.5	143.3	144.8	145.7		
Total Industrial Production*	1949 = 100	224.3	223.1	226.7	225.5	225.4	225.9	228.5	232.4	234.4	236.4	239.6	242.3	242.6	
Total Manufacturing		197.2	195.9	199.4	198.2	200.3	200.2	203.1	204.8	206.2	209.4	210.6	213.9	215.0	
Non-Durables		191.4	189.8	188.9	189.3	193.2	190.9	194.6	195.8	197.5	200.3	200.5	202.8	204.1	
Durables		203.9	203.1	211.8	208.6	208.5	211.1	213.1	215.4	216.2	220.0	222.4	226.8	227.9	
Mining		348.3	343.3	347.5	348.7	332.7	336.9	339.3	354.8	360.6	340.6	360.6	365.1	349.0	
Electric Power and Gas Utilities		429.6	437.4	441.8	435.8	431.8	433.5	431.6	449.8	454.5	480.6	482.7	471.3	489.9	
Primary Energy Demand (Annual Rate)	BKWH	42.13	42.86	43.46	42.52	42.14	43.06	42.59	43.67	44.51	44.98	46.11	45.50	46.71	46.60
ECONOMIC INDICATORS NOT SEASONALLY ADJUSTED*															
Domestic Exports	$ Million	569.1	538.3	685.5	645.0	745.7	717.6	770.4	685.7	701.0	772.0	897.3	795.5		
Imports for Consumption	$ Million	559.5	551.0	729.9	698.2	736.9	795.0	732.4	660.5	725.0	763.7	895.1	791.5		
Foreign Exchange Reserves	US $ Million	2,668	2,649	2,554	2,567	2,499	2,480	2,492	2,598	2,614	2,644	2,681	2,665	2,562	2,548
Prices, Industrial Materials	1935-39=100	256.7	255.3	256.3	256.6	258.5	260.4	259.5	260.9	260.4	259.3	259.4	261.3	265.4	269.9

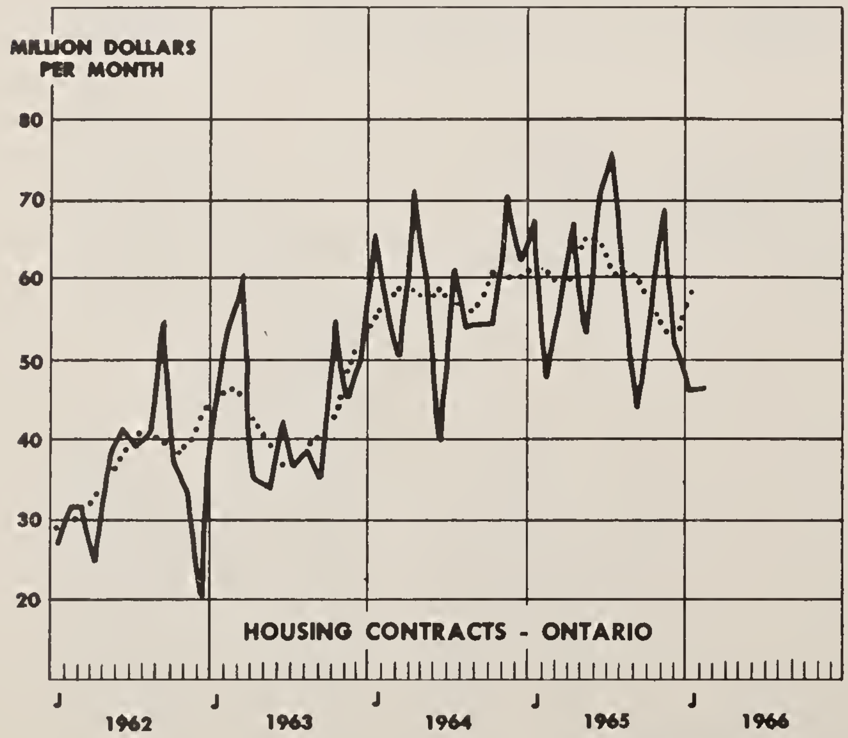
ECONOMIC INDICATORS–SEASONALLY ADJUSTED

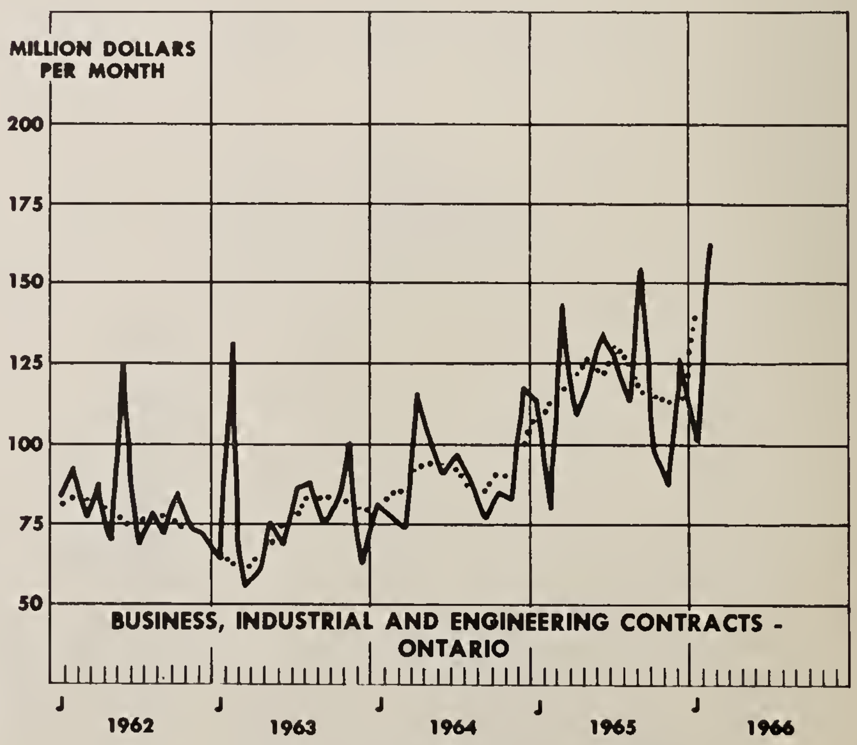








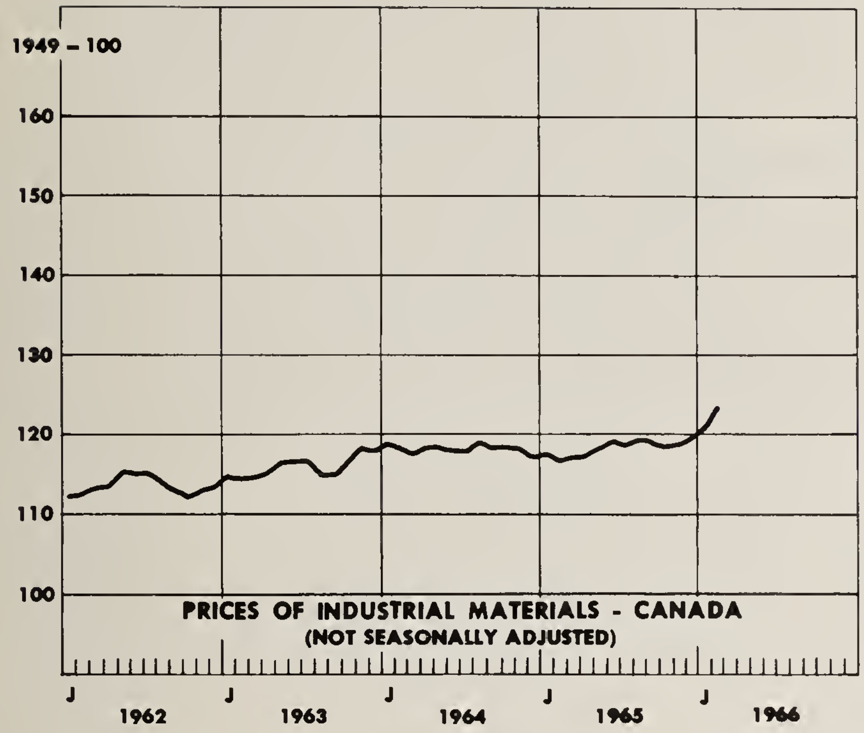




•••••• TREND CYCLE

——— SEASONALLY ADJUSTED MONTHLY FIGURES

ECONOMIC INDICATORS–SEASONALLY ADJUSTED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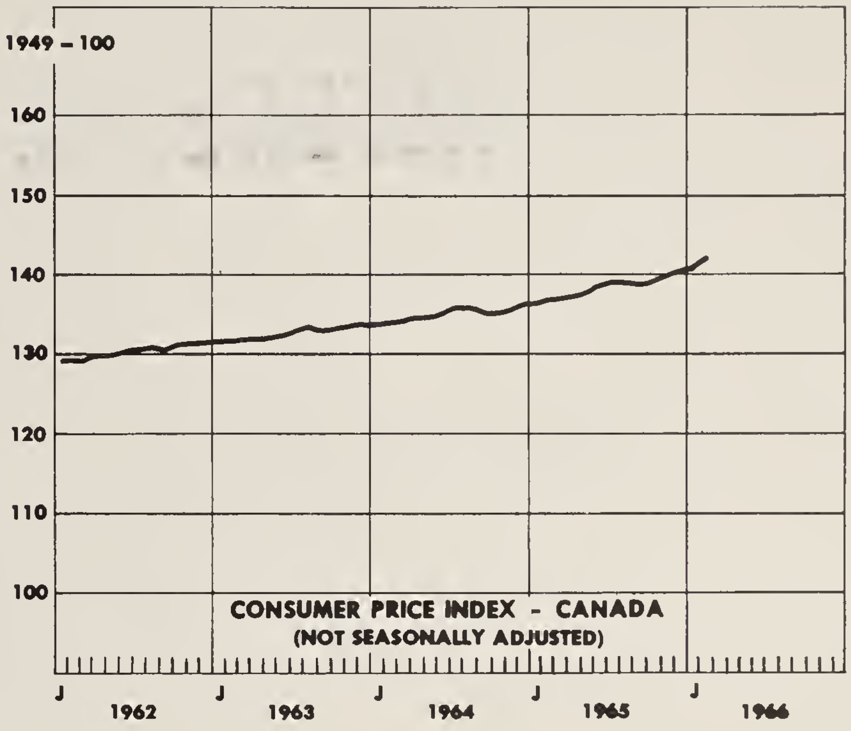
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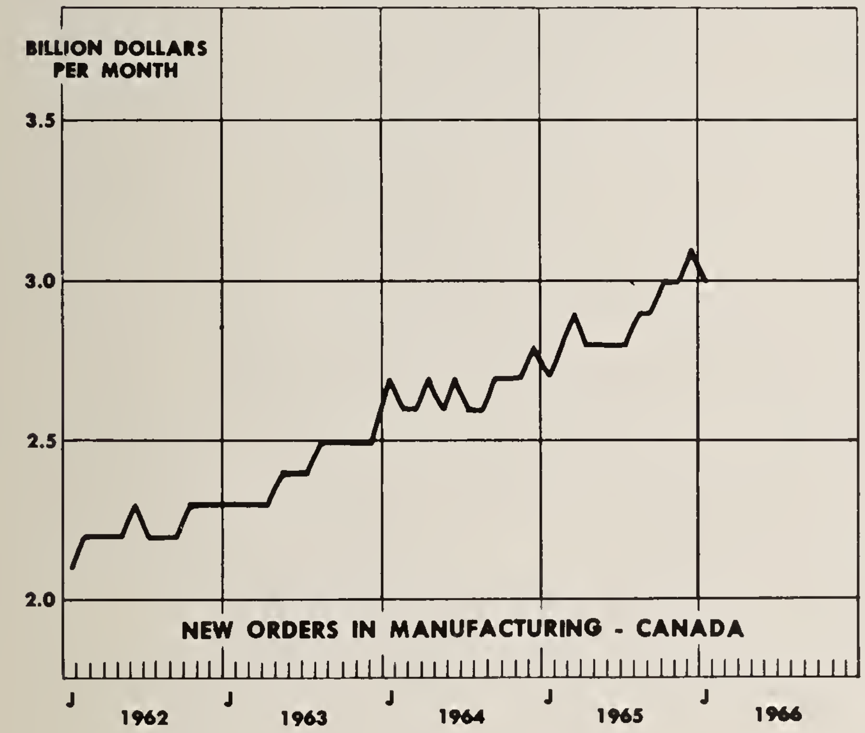
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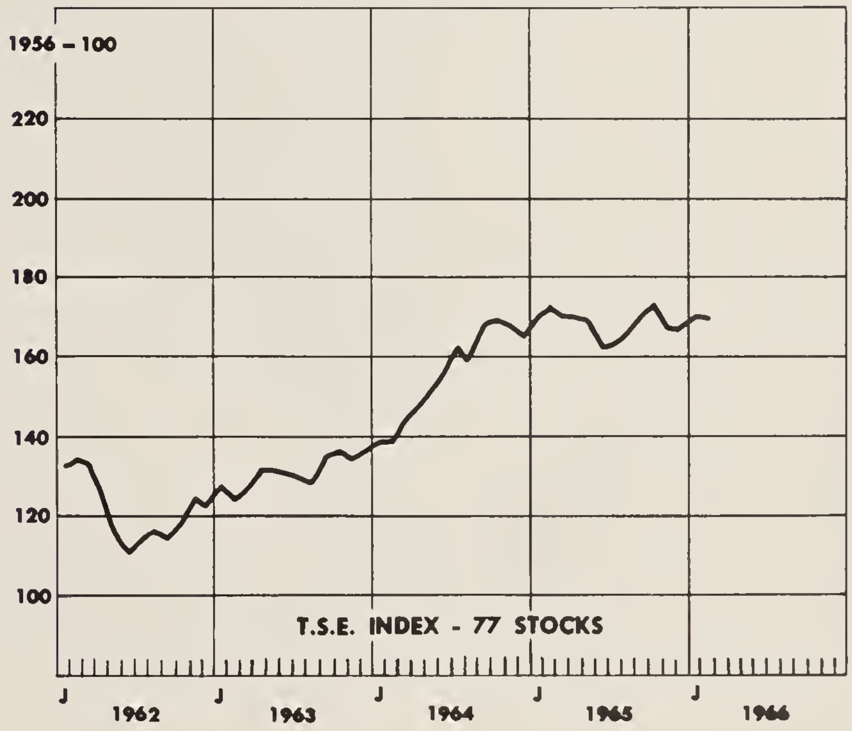
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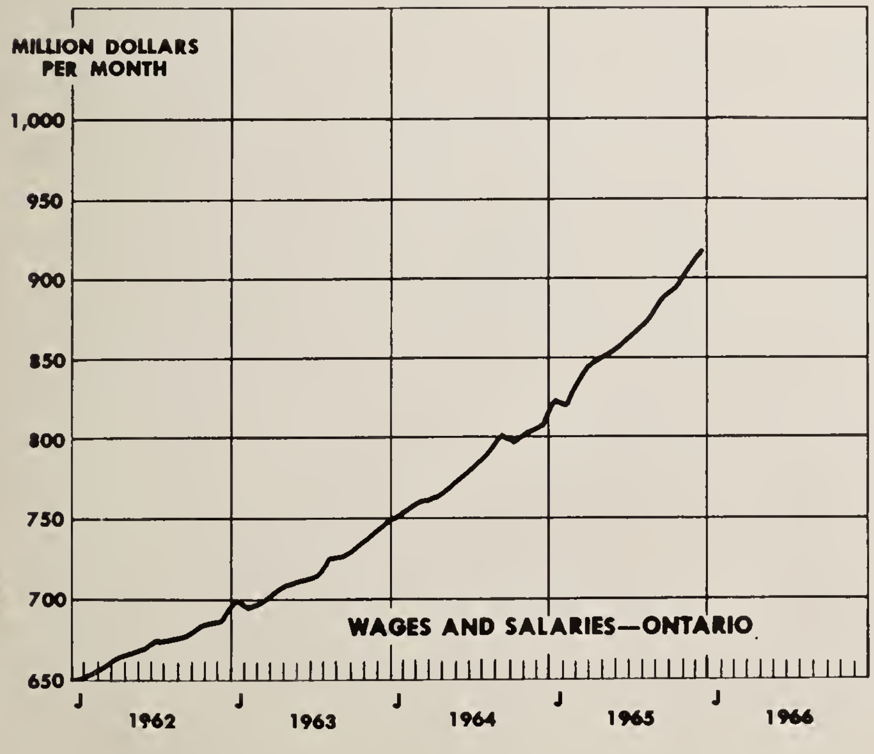
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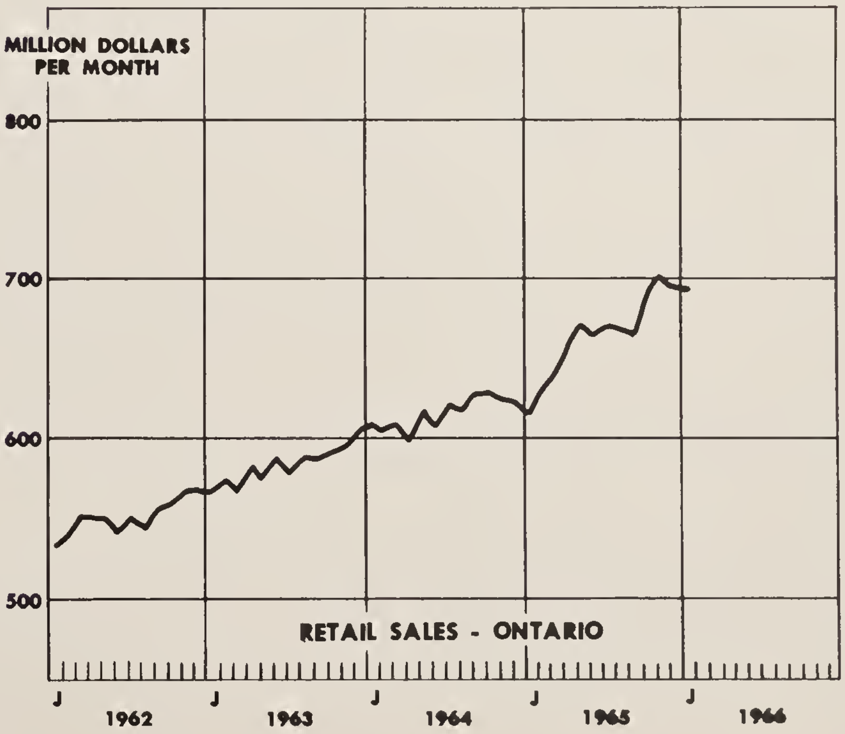
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ONTARIO ECONOMIC REVIEW

APRIL 1966
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DEPARTMENT OF ECONOMICS AND DEVELOPMENT

Hon. Stanley J. Randall, Minister

Stuart W. Clarkson, Deputy Minister

OFFICE OF THE CHIEF ECONOMIST

H. Ian Macdonald, Chief Economist

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The Ontario Economic Review *is prepared and edited monthly in the Economic Analysis Branch of the Department of Economics and Development and is available free of charge. The review is intended to provide current information on economic activity in Ontario and to act as a forum for the results of research in the public service on matters affecting the Ontario economy. The signed articles reflect the opinions of their authors and do not necessarily represent the views of the Economic Analysis Branch. All correspondence should be directed to the Editor,* Ontario Economic Review, *Economic Analysis Branch, Department of Economics and Development, 950 Yonge Street, Toronto 5.*

THE ONTARIO ECONOMY

The economy continued to record impressive increases in the first several months of 1966, although there were occasional declines, notably in construction. Steel ingot production was up 9.3 per cent from one year ago, with Canadian production in March reaching a near-record level of 873.1 thousand tons. The Index of Industrial Production in February rose to 245.1 (based on 1949 = 100), almost 10 per cent higher than February 1965.

April construction contract awards in Ontario, at $185.5 million, were down 7.5 per cent from last year; yet on a total four-month basis they were up over 10 per cent. Housing starts numbered 2,099 units in March, and were more than 15 per cent lower than March 1965. However, at month-end there were almost 10 thousand more units under construction this year than last year.

Ontario's retail sales in the first month of the year were valued at $628.3 million, reflecting a gain over last year greater than in the rest of Canada. The total gain for Canada – 7.6 per cent – was made up of an 8.8 per cent increase in Ontario and a 6.9 per cent increase in the rest of the country.

Production

Steel ingot production rose to 873.1 thousand tons in March, approaching the monthly record of 880.1 thousand tons set in May, 1965. The March production figure represents a twelve-month increase of 9.3 per cent. In the first three months of this year, production was valued at 2,525.7 thousand tons – up 6.6 per cent from the same three-month period last year.

Canada's industrial production rose by 1.0 per cent in February, according to the D.B.S. Index of Industrial Production. The seasonally-adjusted Index rose to 245.1 that month from a January level of 242.7 (based on 1949 = 100). All three major components of the Index – mining, manufacturing, and electric power and gas utilities – contributed to the increase.

The mining index displayed the greatest growth, rising by 4.1 per cent, mainly on the basis of higher levels of production in metals – especially zinc.

Manufacturing production was up 0.4 per cent, with non-durables and durables contributing almost equally. Most non-durables shared in the gain, with the exception of foods and beverages, rubber products, leather products and textiles. The most significant increases were recorded in paper products, clothing and products of petroleum and coal. In durables the gains came principally from increases in electrical apparatus and supplies, non-metallic mineral products and transportation equipment – particularly motor vehicles.

Production of electric power and gas utilities rose 1.1 per cent in February.

Comparing the February figures for 1966 and 1965, there has been a significant increase of 9.9 per cent in the overall Index of Industrial Production. Manufacturing production has been one of the major contributors, with non-durables up 8.0 per cent and durables 12.7 per cent. It is the impressive growth of the transportation group – up 22.7 per cent – which stands out over the period. Yet both iron and steel products and electrical apparatus and supplies have also played an important part.

In January, the estimated value of manufacturing shipments originating in Ontario was recorded at $1,505.9 million, down from December, but up 18.3 per cent from January 1965. Much of this gain can be attributed to the very substantial increase in motor vehicles and parts shipments, demonstrating the benefits of the United States-Canada Automotive Free Trade Agreement. It was signed just one year earlier in January, 1965.

Construction

Unadjusted data for April indicate that total construction contract awards in Ontario, at $185.5 million, were down 7.5 per cent from April 1965. However, on the basis of the total for the first four months of 1966, Ontario's awards were up 10.7 per cent from the same period last year, mainly on the strength of large increases in February and March. Awards in the first four months were $669.8 million this year as opposed to $604.9 million last year.

"Big Jobs" in Ontario – those valued at $1 million and over – accounted for almost one-half of the value of awards in the province in April. At $89.2 million, they represented over one-half of the "Big Jobs" total for Canada. Some are listed in the following table:

LARGE CONSTRUCTION AWARDS PLACED RECENTLY IN ONTARIO

Location	*$ million*	*Description*
Chinguacousy Twp.	2.0	Plant addition
Cornwall	3.8	High school
Don Mills	21.7	Centennial centre
Don Mills	7.0	Office building
Fenelon Falls	1.5	School addition
Georgetown	1.0	Plant
Guelph	2.7	School
Hamilton	2.5	Office building
Kingston	1.0	Home for the aged addition
Lanark	1.1	Home for the aged
London	1.5	University buildings
Ottawa	2.4	Wind tunnel
Port Perry	2.3	School addition
Sarnia	1.5	Apartments
Stoney Creek	1.0	Apartments
Toronto	4.8	Rapid transit structures
Toronto (metro)	11.7	Apartments
Wallaceburg	2.5	Canning plant
Waterloo	3.3	University residence
Woodstock	1.2	Hospital addition

During March, the most recent month for which a detailed breakdown is available, the seasonally-adjusted value of housing contracts was $79.6 million, up 71.6 per cent from the previous month. This represented, as well, a 37.5 per cent increase over March 1965. Similar data for business, industrial and engineering contracts indicate that, at $218.2 million, they were up 34.0 per cent from February's level of $162.8 million, and were 51.6 per cent higher than in March 1965.

Dwelling unit starts in Ontario centres of 5,000 population and over numbered 2,099 units in March (unadjusted data), a decline of 15.1 per cent from March 1965. Increases in Metropolitan Toronto and Hamilton were not able to offset the declines in other centres in the province.

For the first three months as a whole, however, Ontario housing starts were up 4.0 per cent from the comparable 1965 period. These numbered 6,912 dwelling units as opposed to 6,646 units last year. Completions, at 12,184 units, were down 4.6 per cent from the January-March period of 1965.

At March 31st, dwelling units under construction numbered 47,916, almost 10 thousand more than at that time last year.

Sales and Credit

Ontario retail sales in the first month of 1966 were valued at $628.3 million, an increase of 8.8 per cent over January 1965. This was somewhat higher than the 6.9 per cent increase in the rest of Canada. Together the total for Canada came to $1,611.2 million in January — reflecting a 7.6 per cent increase in one year's time. Lumber and building material stores experienced the greatest degree of growth in Ontario over the twelve-month period, rising 27.5 per cent. They were followed by hardware stores and shoe stores, each with gains of over 18 per cent. Clothing, department and variety stores also showed substantial increases of over 10 per cent. Restaurants, grocery stores and general stores had the smallest twelve-month increase, not achieving any more than a two per cent increase. None of the groups declined.

Wholesale sales across the nation rose 9.2 per cent, comparing the 1965 and 1966 figures for January. Preliminary estimates place this year's January value at $933.4 million. By far the largest increase was in farm machinery, where sales rose over 70 per cent. The group containing lumber and special types of construction materials rose 20.2 per cent. In general, meats, foods, drugs, paper products and building materials were significant in terms of growth as well.

January credit statistics reveal that outstanding credit balances for consumers across Canada generally were about 14 per cent higher than in January 1965. Credit balances of sales finance companies, small loan companies and department stores were nine to 13 per cent higher. Personal loans from chartered banks were 22 per cent higher for non-secured loans, 15 per cent higher for fully secured loans and less than three per cent higher for home improvement loans.

Foreign Trade

Canada's imports and exports in February both were substantially higher than one year ago, according to D.B.S. estimates. Yet, from all indications both would have been even higher had it not been for the truckers' strike in Ontario.

Total exports for the month were recorded at $694.7 million, 25 per cent greater than in February 1965; imports, too, were up — at $660.9 million they were 20 per cent higher. The result was a favourable export balance of $33.8 million, compared with one of $6.3 million one year earlier.

It would appear that the Ontario truckers' strike affected imports from the United States more than anything else. At $473.0 million in February, they were only 16 per cent higher than last year. Exports, on the other hand, rose to a level of $424.7 million — up 26 per cent. This reduced the February import balance with the United States from $71.1 million in 1965 to $48.2 million in 1966.

In its trade with the United Kingdom, Canada increased its purchases to $58.8 million; more than $10 million of this, however, was accounted for by nonrecurrent deliveries of defense equipment. Twelve months earlier imports had been valued at $40.6 million. Exports, at $31.5 million, were $8.0 million less than they had been last year.

Imports from other commonwealth and preferential rate countries were valued at $22.5 million in February, a rise of 35 per cent over last year; exports were much less impressive, rising only five per cent to $33.0 million. Trade with all remaining countries showed large increases over last February, with imports rising 24 per cent to $106.7 million, and exports 34 per cent to a level of $146.7 million.

Taking the first two months together, exports and imports were again considerably higher this year than last year. Exports were 26 per cent higher at $1,438.3 million, while imports were up 23 per cent to a two-month total of $1,364.8 million. The export balance rose from $33.6 million in 1965 to $73.5 million in 1966.

Government of Ontario Regional Development Policy

Ontario's regional development policies strive for regional economic specialization which will contribute to total environmental development.

This was one of the important points brought out in "Design for Development", a 25-page policy statement introduced by the Prime Minister on April 5, 1966. The statement stressed that regional economic inequalities would be smoothed out by programs which encouraged labour mobility, tourism, agriculture and other forms of economic activity.

In order to assist new businesses in remote areas, an Ontario Development Corporation would be set up to loan money to businesses unable to obtain finances from other lending agencies.

Legislation was to be introduced immediately to create Regional Development Councils. These Councils would be given sufficient financial and professional resources so that there would be more effective regional participation in development planning.

The Prime Minister stressed that every effort would be made to assist individuals in developing their full capacities. No new forms of government would be imposed. On the contrary, a two-way communication between the Province and local interests would be encouraged, so that local initiative, responsibility and advice could be taken into consideration.

It was stressed that there was a need to coordinate public expenditures on a regional basis. Regional policies would be "cast in the mould" of Ontario's conditions and not borrowed from other jurisdictions. The paper emphasized the need for research and co-ordination of departmental activities.

The Government introduced a nine-point program for regional development which aims to be a "forward looking" design for development:

(1) There will be a Cabinet Committee chaired by the Prime Minister which will coordinate regional plans pertaining to growth and development within the province. This will necessitate priority planning of government expenditures.

(2) There will be a senior Departmental Advisory Committee to advise and assist the Cabinet Committee.

(3) The existing Regional Development Associations shall be formed as advisory citizen bodies and named Regional Development Councils.

(4) The present Ontario Development Agency will be called the Ontario Development Corporation and will assist industrial development by providing loans for fixed capital.

(5) Comprehensive regional research will be undertaken to provide the basis for regional planning. The research will include analysis of resources potential, goods and services now available, income patterns and labour force characteristics.

(6) The Department of University Affairs will encourage regionally-related research in the universities.

(7) Development plans will be based on the concept that regional growth centres are the unifying social and economic force within the region.

(8) A Regional Advisory Board composed of civil servants in the region will advise the senior Departmental Advisory Committee on regional matters.

(9) Finally, an attempt will be made to establish common administrative and planning regions among the operating departments and agencies of the Ontario Government.

"THE NEW ECONOMICS" AND THE PROVINCE OF ONTARIO

H. IAN MACDONALD
Chief Economist, Province of Ontario

THE OLD . . .

In his *Essays in Economics*, the late Professor Pigou of Cambridge tells the story of a young civil service economist in a former British dependency being asked to undertake an economic study. "Before I commence," he remarked, "would you please tell me what answer to the question the government wishes me to find?" The illustration raises some interesting questions about the scope and function of an economic advisory service in a complex, modern government. Economists in the civil service have a clear responsibility to seek answers to policy questions posed by the government and, in proper professional manner, to point out the costs and benefits of various courses of action. Traditionally, the responsibility perhaps extended no further. Now, however, government has become an organic part of the body economic and not only its policies but its very existence will, inexorably, have a profound influence on the economic climate and economic performance. In Ontario, a budget of $1.8 billion in a Gross Provincial Product of over $20 billion is a not insignificant item. Consequently, the economist in government must engage in fundamental research of a very basic kind; he must look forward and outward as well as inward at existing conditions. A government would not launch a rocket to the moon without a long period of scientific inquiry. Whereas the dimensions of the barrier may not be as great in governmental activity at the terrestrial level, the research must be at least as carefully designed and executed. Although the results may not be as dramatic as landing a man on the moon, the number of people affected is undoubtedly greater.

Just as the increase in the relative role of government has evoked more intensive economic research among governments, a contemporary feature of Canadian federalism has decreed that developments at the provincial level should be particularly pronounced. The burgeoning of activity in areas assigned constitutionally to the provinces — education, health, welfare, highways among others — has produced a notable shift in the balance between federal and provincial-municipal activity. Over 55 per cent of government expenditure in Canada now rests with the provincial and municipal governments and over 80 per cent of public investment is placed by these two levels of government. There can be no escape from the consequences of these facts; a large measure of fiscal policy is now the responsibility of the provinces in general and of Ontario in particular. In this trinity of forces — federal, provincial, and municipal, the province occupies the delicate position of fulcrum.

Not surprisingly, note has been taken in recent public discussions of the developing interest and activity by provincial governments in the field of economics. However, it would be improper as far as Ontario is concerned to create the impression that the tradition of a skilled economics service was at all a recent one. On the contrary, the economic research function in the Ontario Government has a long and distinguished history and the professional standards of the staff are well implanted. From the time of the establishment of the Bureau of Statistics and Research in 1943, the function has grown steadily although the location and responsibilities have varied. At that time, the Bureau was a branch of the Treasury Department, to which a small staff was appointed, charged with the comprehensive task of "keep(ing) constantly under review all matters relating to the economy of the Province of Ontario."⁽¹⁾

The Bureau enjoyed immediate and marked success, and, from the very beginning, its role underwent change as it became more apparent that there was a need for an expanded viewpoint in economic affairs. The significant transition from what had been primarily a fact-finding and collating role to an implication-analysing function was marked by the creation, in 1952, of the Office of the Provincial Economist. In turn, this Office absorbed the original Bureau of Statistics and Research in 1954.

Under the guidance of Mr. George Gathercole, the first Provincial Economist, a new era for econom-

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(1) Hon. Leslie M. Frost, Provincial Treasurer, in his Budget Address on March 16, 1944.

ic study in the Ontario Government was introduced by the creation of a Department of Economics in early 1956. In his Estimates Speech, the Provincial Treasurer, the Hon. Dana Porter remarked: "The work (of the Office of the Provincial Economist) has gone beyond the ordinary functions of the Treasury Department, which are sufficiently onerous in themselves, and in some respects, of a different nature . . . (the Office) has established a status and a reputation which leads us to believe that it is in the interest of the development of this branch of the service that it should set up as a separate department". For that year, the Estimates called for a budget of about $164,000. The Department performed a function and had a peculiar flavour quite unlike any other, in recognition of the growing role of the provincial government in economic life. As the Provincial Treasurer described in the same speech: "It (the Department of Economics) is a department, the particular function of which is to look at the problems of the government as a whole, from an economic point of view, in a comprehensive way, rather than from the viewpoint of one department." Finally, in the period 1960-61, proper recognition was given to the important responsibility for intergovernmental relations which had grown within the Department from the beginning of the old Bureau. In that brief period, the "Department of Economics and Federal-Provincial Relations" appeared on the statute books as the new designation.

Before the end of 1961, the Department of Economics and Federal-Provincial Relations was merged with the Department of Commerce and Development to form the Department of Economics and Development.(2) Economics was now wedded to the promotional and developmental functions of trade and industry as a means of enlarging the opportunities for the province's expansion and development. During the period 1961-64, the economics and statistical functions of the new department consisted of three principal research units: the Economics Branch, the Financial Research Branch, and the Special Research and Surveys Branch. In anticipation of events to come, Regional Development Services, a unit which had maintained liaison with the various Regional Development Associations and which had pioneered in the "regional development movement" was attached to this grouping early in this period, and an incipient Statistics Branch, with a small staff, was developed toward the end of 1964.

. . . AND THE NEW

On January 1, 1965, the Office of the Chief Economist was established in the Department of Economics and Development to draw together, in a single focus once more, the various elements required to create a centralized economics and statistical service. This development was the outgrowth of a number of factors. In the first place, as we have noted, the responsibilities for economic research required co-ordination and integration. In the second place, the acceleration in the pace of economic investigation and research had to be accommodated in a systematic manner. Finally, an explicit division within the Department of Economics and Development was required not only to draw together the old functions of economic policy and federal-provincial relations along with the extended scope in regional development, economic planning, and statistics, but also to provide leadership for the economic research units throughout the government.

The primary objective of a strengthened and broadened economic research and statistical service is a more effective provision of economic and statistical information and advice for the Prime Minister and Cabinet, for the Department of Economics and Development, and for individual ministers and senior civil servants in other government departments. Accordingly, the Office of the Chief Economist has been assigned the following broad responsibilities:

(i) to act as senior economic adviser to the government on economic policy matters;

(ii) to direct the central economic research and statistical operation;

(iii) to co-ordinate economic research and policy among the various provincial agencies, including the Ontario Economic Council;

(iv) to direct research and co-ordinate activities in the area of federal-provincial affairs;

(v) to administer the Ontario Statistics Act.

It is also understood that the Chief Economist will study the basic requirements for the most effective organization and research co-ordination throughout the government and make recommendations for fundamental changes and improvements.

In broad terms, it might be said that the objective for this Office should be the performance of the prime function recommended by the Glassco Commission to the Federal Government for such a central service: ". . . to undertake the conduct of central economic analysis for the purpose of aiding the development and co-ordination of general economic policy". To fulfil such a role, the Office of the Chief Economist must be equipped to undertake economic analysis, provide economic intelligence, and initiate specific economic investigations of a general nature on "matters of pervasive significance for the whole of the economy."

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(2) The Department of Commerce and Development had been formed early in 1961 to absorb the former Department of Planning and Development.

During 1965, an intensive study was launched into the logic of the existing arrangements and branch structure. Early this year, a new organization was introduced as a basis for the expansion and complete revision of the previous arrangements. Reconstruction has involved a complete alteration in branch structure. The three economics branches were abolished and replaced by five new units, namely: the Economic Planning Branch, the Economic Analysis Branch, the Applied Economics Branch, the Regional Development Branch (absorbing the Regional Development Services unit), and the Federal-Provincial Affairs Secretariat. The Statistics Branch will undergo such a transformation in the process of being converted into the Ontario Statistical Centre as to constitute a new body as well. Partly, these changes represent old wine in new bottles although there is also a high proportion of new wine. The approved complement, expanded from 63 to 76 in 1965, will increase to 135 in the fiscal year 1966-67 and the budget for the Office of the Chief Economist to $1,289,000.

The form of reorganization has been designed both to take account of the increasing sophistication of economic analysis and the greater complexity of economic policy and to provide for new machinery of government organization at the policy level. In particular, the structure has been designed to meet three governmental developments and to provide the necessary research functions in support of these developments.

In the first place, the 1966 Budget Statement described the government's intention to establish clear policy priorities to assure that expenditures will make the greatest contribution to the development of the province, to plan its financial and economic activity to achieve maximum effectiveness, to co-ordinate government policies and programs such as those designed to contribute to the economic development of all regions of the province, and to view all policies in the context of federal-provincial-municipal relationships. To assist in meeting those objectives, the government has decided to establish a three-man committee of senior economic and financial advisers, consisting of the Chief Economist, the Secretary of the Treasury Board, and the Deputy Provincial Treasurer. In the second place, the "Design for Development" tabled in the Legislature on April 5, 1966 announced the formation of a Cabinet Committee, with broad terms of reference, to be concerned with the inter-related processes of policy, priorities, planning, and co-ordination of government activity; this statement also called for a greatly extended research function in the Regional Development Branch and in the various universities across the province. In the third place, the government wished to make provision for an orderly approach to federal-provincial affairs and for careful study and research into the complex framework of Canadian federalism.

With the machinery of government undergoing these additions and changes, it was clear that two supporting requirements had now to be developed within the context of such broad objectives. First, it was evident that a major breakthrough was required in the collection and use of provincial economic and administrative statistics. Such an advance must be capable of reaching beyond any limits previously contemplated for the provincial economy in Ontario. Second, the new organization must be equipped to service departments such as Education, University Affairs, Energy and Resources Management, and Labour, who are actively seeking economic guidance in planning for the future, and with whom all our efforts must assume a common course.

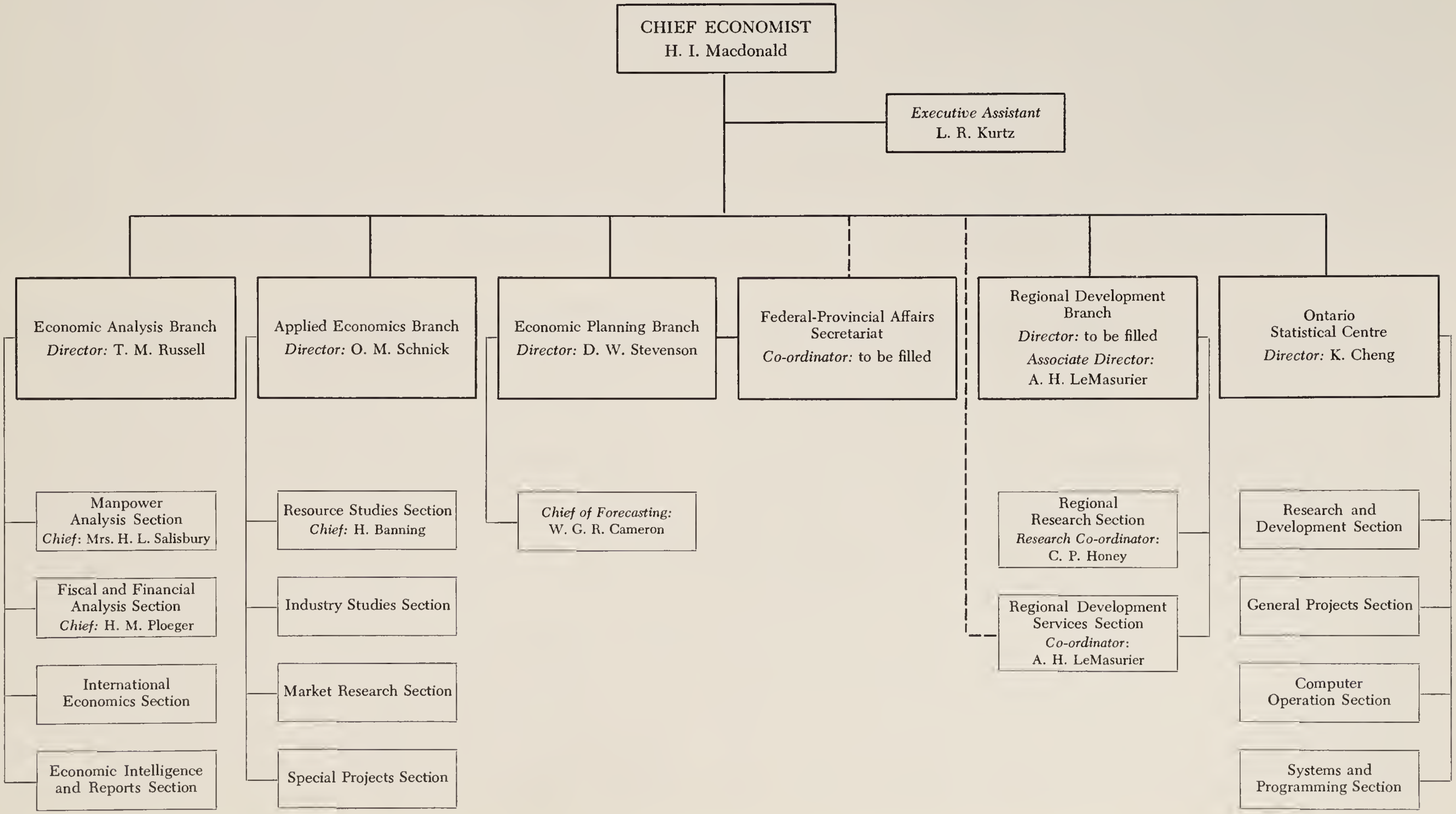
Of the six new units, it might be said that the Economic Planning Branch and the Federal-Provincial Affairs Secretariat will form the nerve centre with the other branches providing the arms and legs of the organization. In another sense, the work of three units — the Economic Planning Branch, the Federal-Provincial Affairs Secretariat, and the Regional Development Branch — will be directed toward the central planning functions of the Cabinet Committee and the need for an overview of government activity, while the other three — the Economic Analysis Branch, the Applied Economics Branch, and the Ontario Statistical Centre — will provide the analytical support and detailed research required in the overall operation.

THE FUNCTIONS OF THE NEW BRANCHES

(1) Economic Planning Branch

This branch will fill the need for long-range planning of government economic activity and investment. It should also provide a source of co-ordination and planning for the Office of the Chief Economist in assuring that, in the various research units of the government, all aspects of the provincial economy are reviewed in the context of future

ORGANIZATION OF THE OFFICE OF THE CHIEF ECONOMIST


CHIEF ECONOMIST
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Executive Assistant
L. R. Kurtz
Economic Analysis Branch
Director: T. M. Russell
Manpower Analysis Section
Chief: Mrs. H. L. Salisbury
Fiscal and Financial Analysis Section
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Chief: H. Banning
Industry Studies Section
Market Research Section
Special Projects Section
Economic Planning Branch
Director: D. W. Stevenson
Chief of Forecasting:
W. G. R. Cameron
Federal-Provincial Affairs Secretariat
Co-ordinator: to be filled
Regional Development Branch
Director: to be filled
Associate Director:
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Regional Research Section
Research Co-ordinator:
C. P. Honey
Regional Development Services Section
Co-ordinator:
A. H. LeMasurier
Ontario Statistical Centre
Director: K. Cheng
Research and Development Section
General Projects Section
Computer Operation Section
Systems and Programming Section

requirements. As part of its role in studying the long-run requirements of the provincial economy on an overall basis, the branch will be charged with the work of building up long-run knowledge of the economy, forecasting probable and potential levels of economic activity, identifying bottlenecks and obstacles to economic growth and development, studying the long-term public investment requirements, and endeavouring to arrive at detailed explanations of economic changes and occurrences.

(2) Federal-Provincial Affairs Secretariat

The Secretariat has the dual function of undertaking research and study within the area of federal-provincial affairs, and co-ordinating the activities of Ontario government departments and agencies in the federal-provincial area, including the preparation and co-ordination of material for Federal-Provincial Conferences. In addition, the Secretariat should provide the necessary overview of federal-provincial affairs in support of the development of consistent government policy, through the maintenance of a continuing intelligence service in the broad areas of federal-provincial concern. The Secretariat is also undertaking much of the staff work for the Ontario Advisory Committee on Confederation in its advisory function to the Prime Minister.

(3) Economic Analysis Branch

The function of this branch is to carry out economic research work directed to keeping abreast of current developments, and to provide a central core of economic intelligence. As such, the first responsibility of this branch is to ensure the needs of the Prime Minister and other ministers for information on the Ontario economy and on economic conditions in general. In this process, the branch provides significant information on current and past economic phenomena as well as detailed study of economic variables affecting the provincial economy. It also carries out research into fiscal arrangements and federal-provincial economic and fiscal problems in support of the work of the Tax Structure Committee and its required analysis. The branch will also be developing detailed sectoral analysis in co-operation with the Ontario Statistical Centre. This should provide the necessary longer-run research insight into the structure of the provincial economy, upon which the Economic Planning Branch can base an appreciation of the impact and role of the government sector. Finally, the responsibility for providing the public with economic information on the Ontario economy is an added service provided by this branch.

(4) Applied Economics Branch

The function of this branch is to conduct economic investigations for the purpose of satisfying the immediate need for economic advice. Most of the studies are of a feasibility or implication-analysing nature. These studies serve the Department of Economics and Development in working out a program for Trade and Industry, the Ontario Housing Corporation, and the Ontario Development Agency.(3) However, an even greater service is rendered to other departments such as Energy and Resources Management, Lands and Forests, Mines, Agriculture, and Highways, who request particular studies with implications beyond their own boundaries. As such, this branch will not only maintain a core of basic resource studies, but it will also provide services to other departments and their research sections. Already, work in fields such as transportation has grown markedly.

(5) Regional Development Branch

This branch is now composed of two sections. A new Regional Research Section will undertake research and prepare reports on the boundaries, and the economic base and potential of the regions of Ontario. This research will provide the basis required for the preparation and implementation of the regional development program and provide the basic research establishment in support of the regional development work of the Cabinet Committee. The Research Section will also provide field research officers as liaison with the regional activities of all government departments and agencies and coordinate the research that is undertaken in the universities across the province and by other outside bodies.

The Regional Development Services Section will continue to provide practical advice and assistance to the Regional Development Associations(4), to coordinate their programs and activities, and to provide for liaison between government agencies and the Associations. The pioneer work of the Regional Development Services Section has been recognized across the province. Now that it is to be reinforced by a research staff, specializing in regional economics and planning, we are preparing to undertake a comprehensive examination of the problems and potential of the province's ten economic regions. The areas where co-ordinated attack is required will become abundantly clear in this process.

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(3) Legislation to convert the Ontario Development Agency into a new crown corporation, the Ontario Development Corporation, is presently before the Legislature.

(4) Legislation to convert the Regional Development Associations into new Regional Development Councils is presently before the Legislature.

(6) Ontario Statistical Centre

The key to the effective and efficient operation of a central economic research service is the existence of a functional economic statistics centre. A nucleus for such an operation was gathered together at the end of 1964, and this branch is now becoming a core of basic information and data to the other branches as well as to the whole government. For these reasons, it has been designated the Ontario Statistical Centre.

The Centre administers the Ontario Statistics Act, 1962-63, and will eventually undertake input-output and provincial accounts flow studies upon which long-run financial planning may be based. In addition, it will collect, analyse, present or store information which has a statistical value, and process and publish statistics required by the province. It will design samples and conduct surveys for Ontario government departments. The Ontario Statistical Centre will co-ordinate and serve as a liaison among federal, provincial and municipal governments in matters concerned with statistics. It will also attempt to develop statistical standards, including a common coding and classification system, and will provide computer and programming services to Ontario government departments.

Another part of its work will be concerned with research requiring analysis and statistical theories. These activities will include plans to establish a General Purpose Information System with a Data Bank which would integrate available administrative data for development of statistical information, thus providing information for governments and industries of the province. This General Purpose Information System will improve timeliness of statistics, cost of production, and will reduce duplication in collection, processing and storage of data. The common information stored in the system will be made accessible to all departments and industries in a usable form as far as is permitted by disclosure rules.

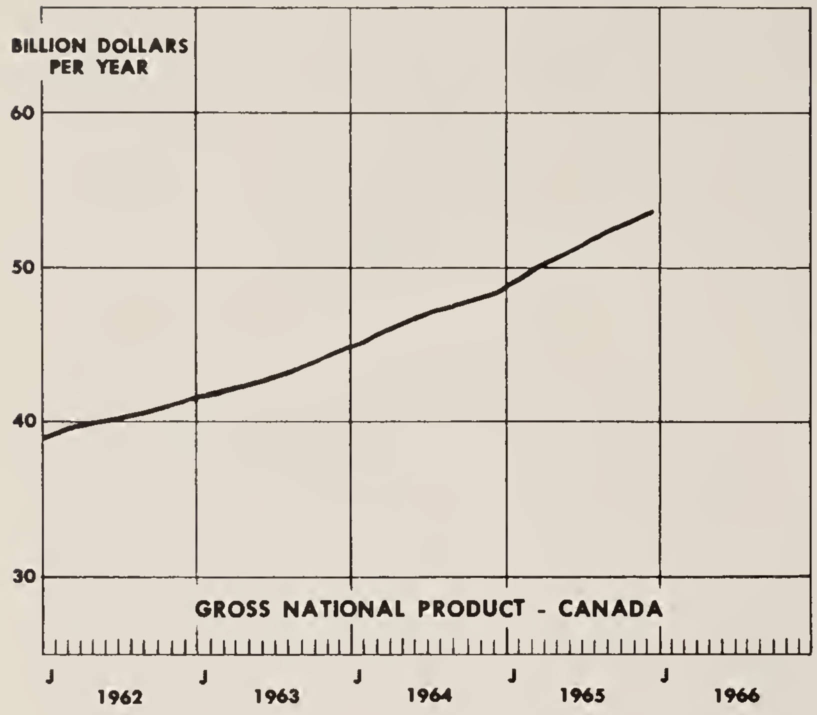
The Dominion Bureau of Statistics has welcomed the Ontario Statistical Centre, particularly since it should be one of the vehicles through which a glaring gap in a total statistical information system for Canada – that gap represented by the potential of administrative data – can be filled.

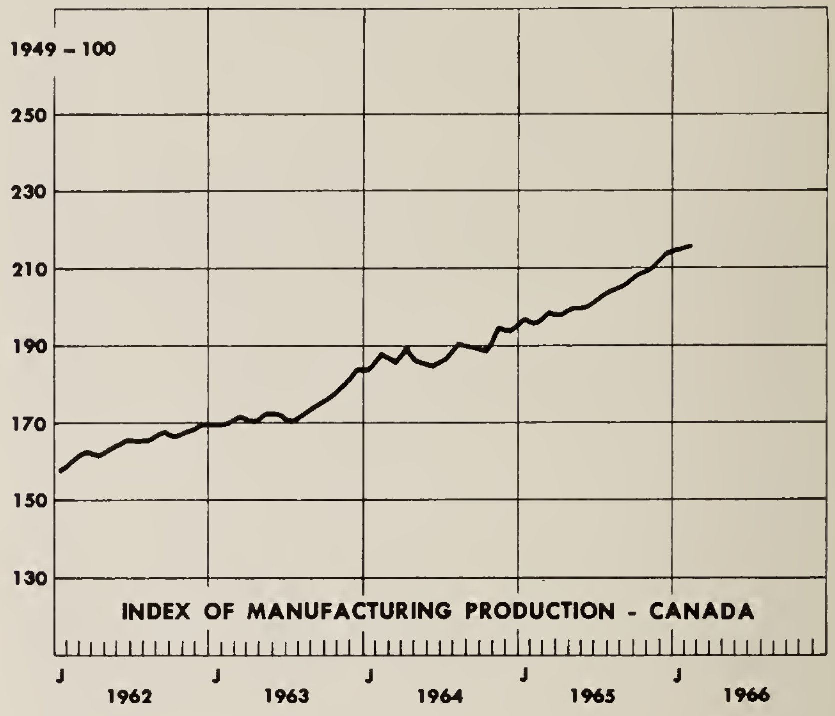
FROM HOPE TO FULFILMENT

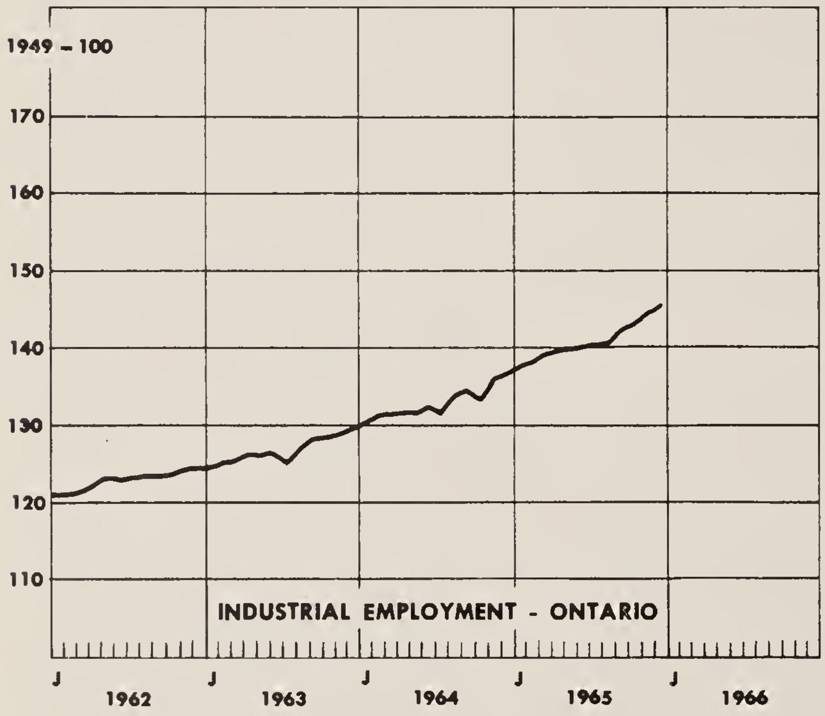
The development of this research program involves a continuing buildup of personnel, particularly in the Statistical Centre, and much is yet to be done in hiring key personnel and in developing more explicit lines of research and exploration. However, we earnestly hope to avoid the pitfalls of the quantitative theory of quality. Our first objective is the provision of a high quality research team, capable of reaching toward new vistas. At the same time, we will be seeking the means to ensure more effective co-ordination of research and policy advice between the departments of the government. Just as regional development requires the active collaboration of all departments, effective research demands a united effort. During the summer, the various branches comprising the Office of the Chief Economist will be moved into the Treasury Building to make our central service more readily available to other departments. We shall be attempting to build an effective linkage within the whole network of economic research in the Ontario Government.

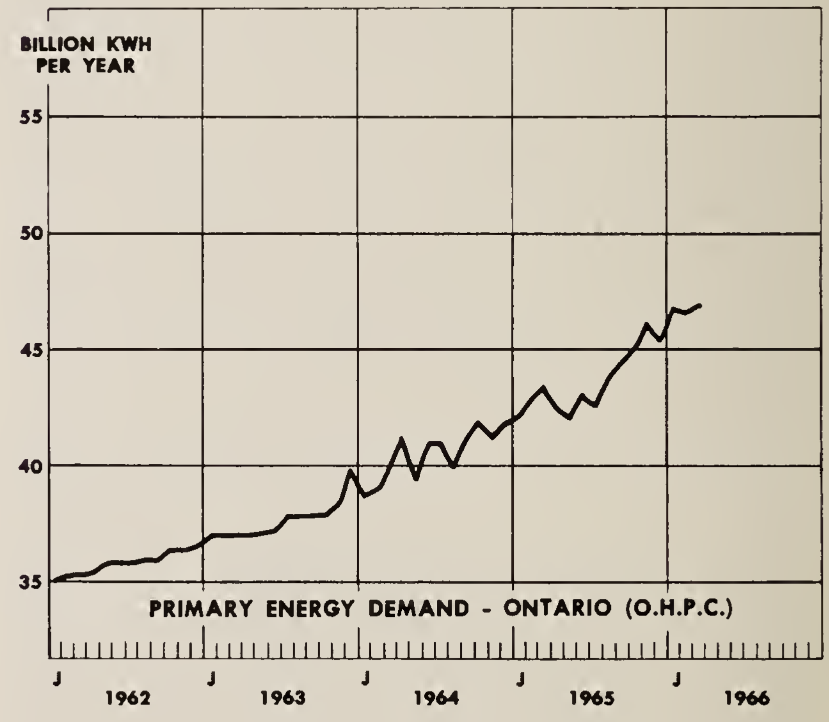
Lord Keynes once warned that "the theory of economists does not furnish a body of settled conclusions immediately applicable to policy." However, it is a proper objective for economists in the civil service to shorten as much as possible the gap in time and substance between their investigation and the formulation of government policy. The goal of this Office will be the fulfilment of that objective without any sacrifice of professional research standards.

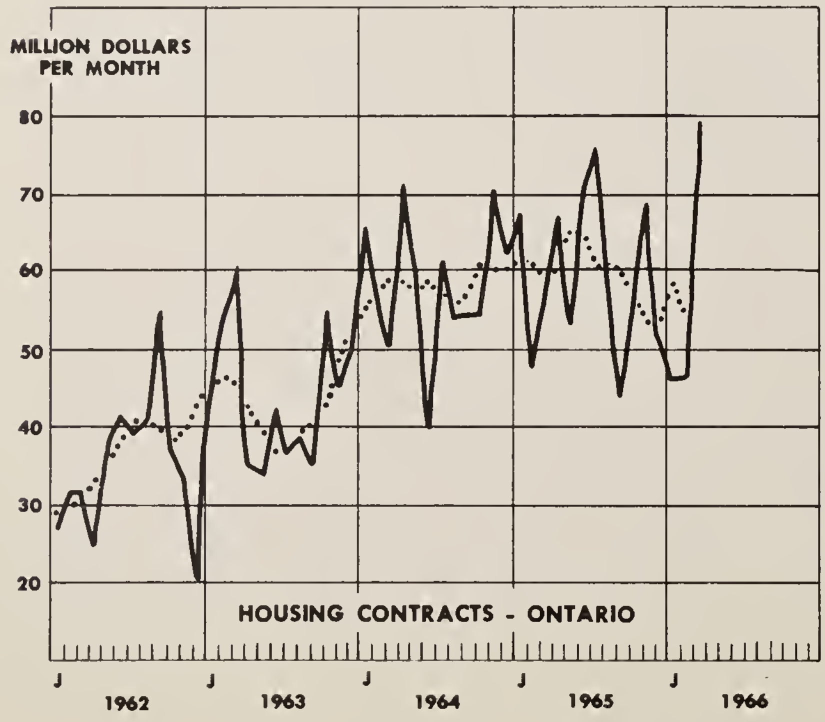
ECONOMIC INDICATORS—SEASONALLY ADJUSTED

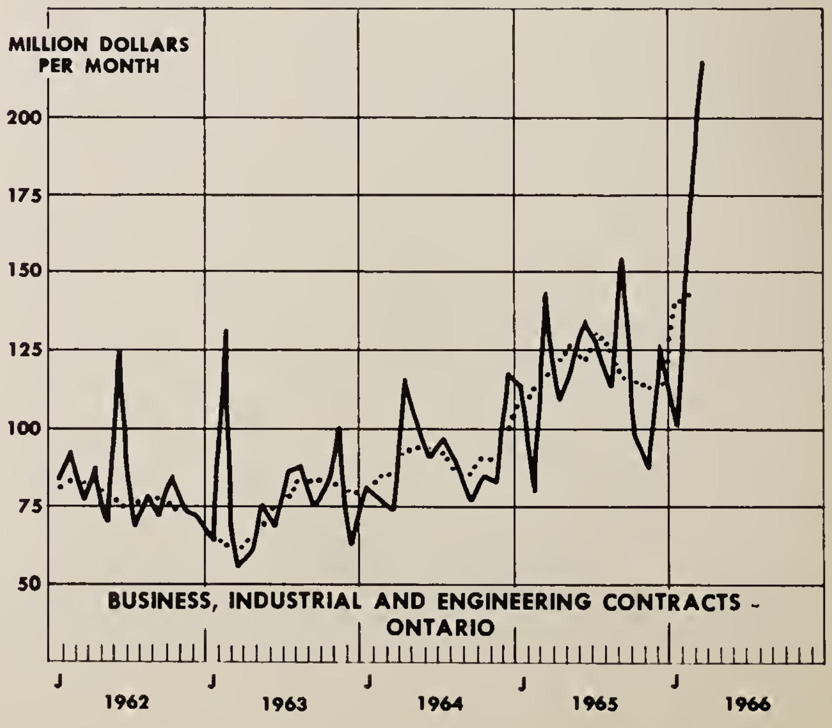








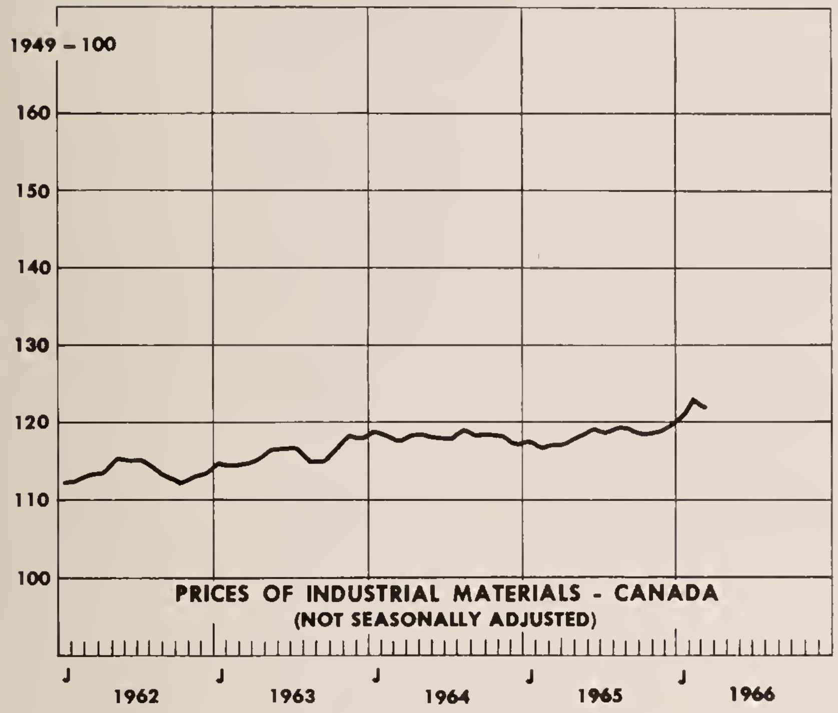


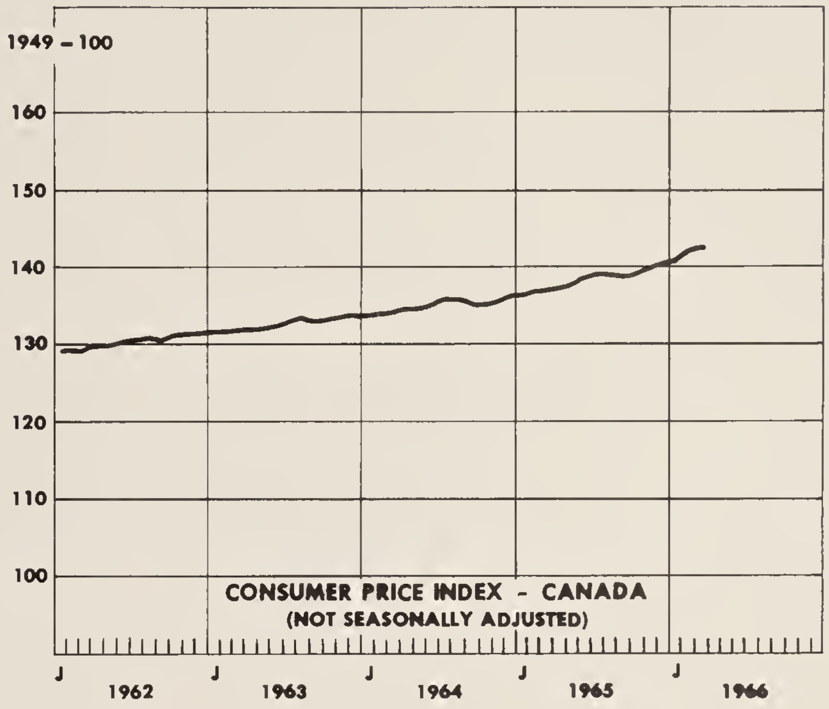


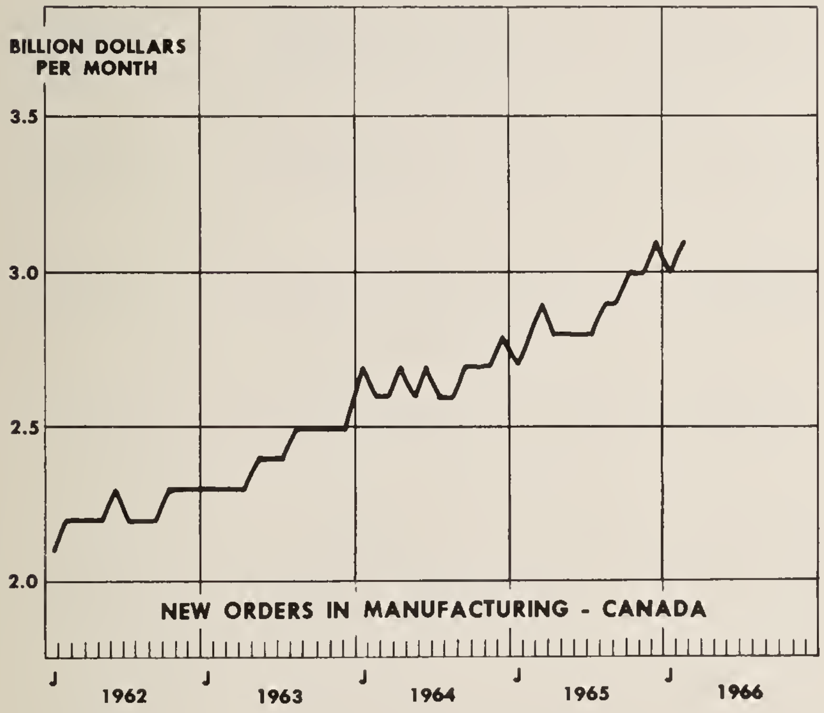
······· TREND CYCLE

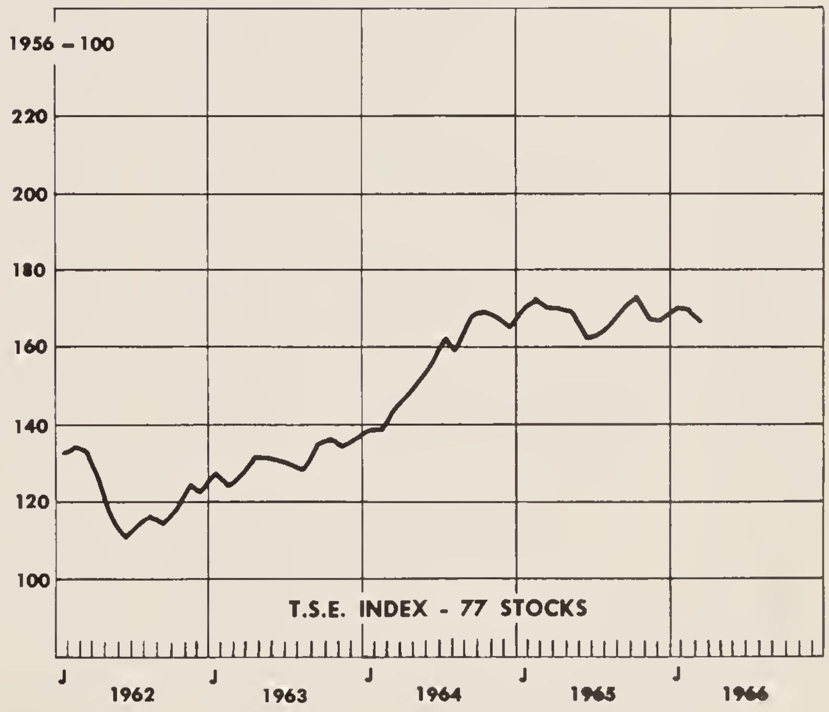
——— SEASONALLY ADJUSTED MONTHLY FIGURES

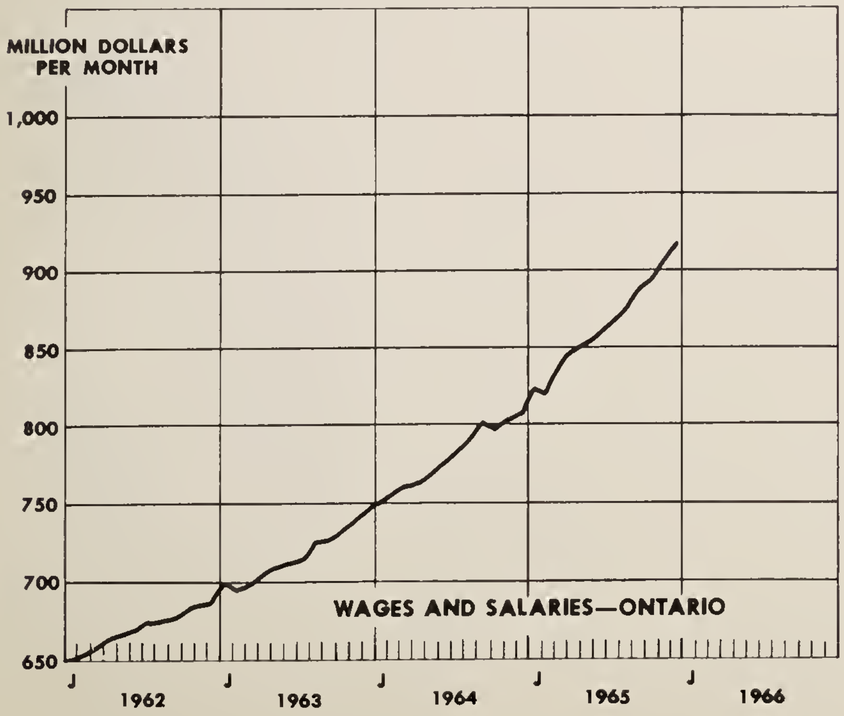
ECONOMIC INDICATORS–SEASONALLY ADJUSTED

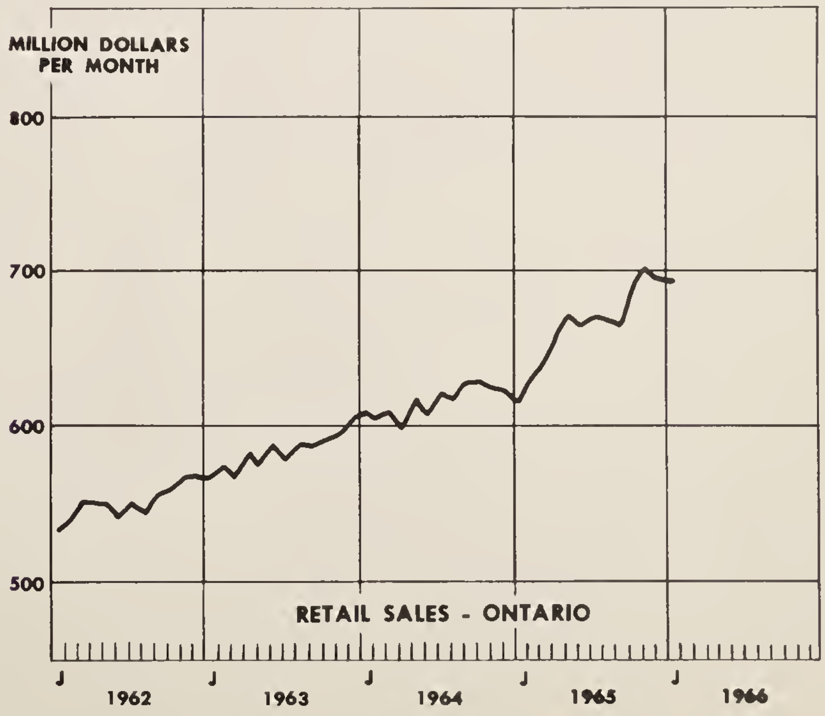

PRICES OF INDUSTRIAL MATERIALS - CANADA
(NOT SEASONALLY ADJUSTED)


CONSUMER PRICE INDEX - CANADA
(NOT SEASONALLY ADJUSTED)


NEW ORDERS IN MANUFACTURING - CANADA


T.S.E. INDEX - 77 STOCKS


WAGES AND SALARIES—ONTARIO


RETAIL SALES - ONTARIO

ONTARIO ECONOMIC INDICATORS - SEASONALLY ADJUSTED
(*Figures for Canada)

		1965											1966		
LEADING INDICATORS		Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March
Average Weekly Hours Worked in Manufacturing	(No.)	40.3	41.7	41.5	41.0	41.3	40.8	40.9	40.7	41.1	41.4	42.2			
New Dwelling Unit Starts	(No.)	5,815	5,353	3,848	5,010	5,806	4,770	7,377	4,464	3,764	4,708	4,634	5,805		
Business Failures	(No.)	77	130	67	87	65	63	83	79	70	71	69	72	76	91
Business Failures - Liabilities	$ Million	10.3	8.9	4.0	5.3	4.6	4.0	20.7	9.5	2.6	3.4	3.2	4.9	7.3	5.1
New Orders in Manufacturing*	$ Million	2,793	2,870	2,827	2,834	2,829	2,849	2,909	2,897	3,005	3,014	3,103	2,996	3,106	
Housing Contracts	$ Million	48.1	57.9	67.3	53.7	70.9	76.2	59.1	44.3	56.6	68.9	51.9	46.4	46.4	79.6
Business, Industrial and Engineering Contracts	$ Million	80.3	143.9	109.3	117.9	135.9	127.8	115.0	155.7	98.1	87.6	125.8	101.8	162.8	218.2
Money Supply*	$ Million	18,065	18,289	18,557	18,683	18,716	19,172	19,639	19,654	19,786	19,747	19,770	19,758	19,814	
T.S.E. Index - 77 Stocks	1956 = 100	172.8	170.7	171.1	169.5	163.0	163.9	166.8	171.4	174.2	167.7	168.1	171.2	169.8	167.1
COINCIDENTAL AND LAGGING INDICATORS															
New Dwelling Unit Completions	(No.)	3,727	8,392	7,115	4,518	4,019	2,153	4,075	3,269	2,830	3,825	4,570	5,553		
Average Hourly Earnings in Manufacturing	$	2.20	2.23	2.23	2.22	2.23	2.23	2.23	2.26	2.28	2.29	2.26			
Gross National Product*	$ Million		50,196			51,324			52,704			53,760			
Cheques Cashed in Clearing Centres	$ Million	3,869	3,981	4,127	4,211	4,097	4,184	4,634	4,287	4,313	4,363	4,526	4,687		
Retail Trade	$ Million	631	641	659	672	665	672	669	667	694	703	697	695		
Labour Force	000's	2,592	2,590	2,594	2,607	2,626	2,626	2,642	2,608	2,605	2,621	2,641	2,675	2,672	2,686
Employed	000's	2,524	2,531	2,522	2,536	2,548	2,556	2,574	2,541	2,556	2,562	2,582	2,612	2,612	2,629
Unemployed	000's	68	59	72	71	78	72	68	67	49	59	59	63	60	57
Unemployed as % of Labour Force	%	2.6	2.3	2.8	2.7	3.0	2.7	2.6	2.6	1.9	2.3	2.2	2.4	2.2	2.1
Wages and Salaries	$ Million	823	843	849	854	861	868	874	888	895	908	918			
Industrial Employment	1949 = 100	138.2	139.3	139.8	140.1	140.5	140.7	140.9	142.5	143.3	144.8	145.7			
Total Industrial Production*	1949 = 100	223.1	226.7	225.5	225.4	225.9	228.5	232.4	234.4	236.4	239.6	242.3	242.7	245.1	
Total Manufacturing		195.9	199.4	198.2	200.3	200.2	203.1	204.8	206.2	209.4	210.6	213.9	215.2	216.0	
Non-Durables		189.8	188.9	189.3	193.2	190.9	194.6	195.8	197.5	200.3	200.5	202.8	204.3	205.0	
Durables		203.1	211.8	208.6	208.5	211.1	213.1	215.4	216.2	220.0	222.4	226.8	227.9	228.9	
Mining		343.3	347.5	348.7	332.7	336.9	339.3	354.8	360.6	340.6	360.6	365.1	349.0	363.3	
Electric Power and Gas Utilities		437.4	441.8	435.8	431.8	433.5	431.6	449.8	454.5	480.6	482.7	471.3	489.9	495.3	
Primary Energy Demand (Annual Rate)	BKWH	42.86	43.46	42.52	42.14	43.06	42.59	43.67	44.51	44.98	46.11	45.50	46.71	46.60	46.88
ECONOMIC INDICATORS NOT SEASONALLY ADJUSTED*															
Domestic Exports	$ Million	538.3	685.5	645.0	745.7	717.6	770.4	685.7	701.0	772.0	897.3	795.5			
Imports for Consumption	$ Million	551.0	729.9	698.2	736.9	794.9	732.3	660.5	725.0	763.6	895.1	786.9	703.9		
Foreign Exchange Reserves	US $ Million	2,649	2,554	2,567	2,499	2,480	2,492	2,598	2,614	2,644	2,681	2,665	2,562	2,548	2,510
Prices, Industrial Materials	1935-39=100	255.3	256.3	256.6	258.5	260.4	259.5	260.9	260.4	259.3	259.4	261.3	265.4	269.9	

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ONTARIO ECONOMIC REVIEW

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DEPARTMENT OF ECONOMICS AND DEVELOPMENT

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Stuart W. Clarkson, Deputy Minister

OFFICE OF THE CHIEF ECONOMIST

H. Ian Macdonald, Chief Economist

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The Ontario Economic Review *is prepared and edited monthly in the Economic Analysis Branch of the Department of Economics and Development and is available free of charge. The review is intended to provide current information on economic activity in Ontario and to act as a forum for the results of research in the public service on matters affecting the Ontario economy. The signed articles reflect the opinions of their authors and do not necessarily represent the views of the Economic Analysis Branch. All correspondence should be directed to the Editor,* Ontario Economic Review, *Economic Analysis Branch, Department of Economics and Development, 950 Yonge Street, Toronto 5.*

THE ONTARIO ECONOMY

Production

During May steel ingot production recovered from the less active month of April. Production rose from 845.2 thousand tons to 877.6 thousand tons, a gain of 3.8 per cent. However, the May figure did not quite equal the 1966 high of 879.2 thousand tons set in March.

The seasonally-adjusted Index of Industrial Production for Canada rose 0.8 per cent from February to March 1966, reaching a level of 272.9 (based on 1949 = 100). This represented an 8.9 per cent increase over the past 12 months.

Growth over the one-month period was recorded at 0.7 per cent in mining and manufacturing and at 2.4 per cent in electric power and gas utilities.

In mining the overall one-month gain was the net result of increases in the production of nickel (12.8 per cent), asbestos (8.2 per cent) and petroleum (2.1 per cent) in the face of very limited gains or actual declines in the other components. Iron ore and coal experienced the most noticeable declines, dropping 15.7 per cent and 6.9 per cent respectively.

In spite of slight declines in the motor vehicles industry and in iron and steel, manufacturing still recorded a net gain of 0.7 per cent. Non-durables rose 1.1 per cent with most categories increasing; but durables increased only 0.2 per cent. Over the 12-month period the gains for non-durables and durables were 8.9 per cent and 8.2 per cent respectively.

In electric power and gas utilities the 4.0 per cent increase in electric power over the one-month period countered the 4.8 per cent decline in gas production. On a one-year basis electric power has increased a substantial 17.0 per cent.

Ontario's manufacturing shipments rose to a level of $1,489.2 million in February, an increase of 0.9 per cent from the previous month. Over a one-year period the increase has been 17.5 per cent.

Construction

Construction contracts awarded in Ontario were recorded at $197.4 million during May, 9.4 per cent higher than May 1965. This increase was due to the substantial increase in business, institutional and engineering contracts which were 30.2 per cent, 27.9 per cent and 40.8 per cent higher respectively than a year ago. Their May values were recorded at $25.2 million, $41.0 million and $26.6 million respectively. Residential construction, on the other hand, was valued at $68.1 million, down 20.8 per cent from one year earlier. Both apartment and housing construction showed less activity than last May.

The following are some of the "Big Jobs" – those valued at $1 million or more – which contributed to Ontario's "Big Job" total of $78.9 million in May.

LARGE CONSTRUCTION AWARDS PLACED RECENTLY IN ONTARIO

Location	*$ Million*	*Description*
Beaverton	1.2	Home for the aged
Burlington	1.0	Plant
Hamilton	1.2	Apartments
London	7.3	Hospital extension
North York Twp.	1.2	Plant and office
Orillia	2.5	Plant
Ottawa	7.2	University building
Peterborough	1.0	Apartments
Saltfleet Twp.	2.3	Apartments
Sarnia	1.8	Shopping centre
Scarborough Twp.	6.5	Mail order building
Toronto (metro)	15.3	Apartments
Windsor	8.0	Auto plant extension
Woodstock	2.8	Textile plant
Various locations	7.5	Provincial highway projects

For the first five months of this year, overall construction awards in Ontario have been running 10.4 per cent ahead of last year. As in the case of May, this has been attributable to generally higher levels of activity in most types of construction with the exception of residential construction.

Housing starts in April in Ontario centres of 5,000 population and over totalled 3,047 dwelling units, a drop of 14 per cent from April 1965. Metro Toronto (census area), accounting for 1,285 units, was down 14.9 per cent from last year.

Reduced residential construction in Ontario throughout 1966 is reflected in the fact that starts for the first four months, numbering 9,959, are running 2.3 per cent below last year.

With 4,875 units completed in April, the four-month total is now 17,059 dwelling units. This is 3.8 per cent below the 17,736 units completed in that period last year.

Retail Trade

Retail trade during the month of April experienced a very slight decline from April of the previous year. This was mainly due to the introduction on April 1st of an increase in the Ontario sales tax, a measure which had led to a greater concentration of sales in March. The retail sales — which in March had been 25.5 per cent higher than last year — were down in April 0.5 per cent from April 1965. The recorded value was $644.9 million. Across the rest of Canada sales were approximately 7.3 per cent higher than last year.

The decline of April sales was particularly evident in the motor vehicles group. In March, Ontario motor vehicle dealers experienced sales of $190.3 million, 41.1 per cent more than in March 1965; in April, on the other hand, sales were recorded at $99.7 million, a drop of 27.2 per cent from that month one year earlier. Furniture, appliance and radio dealers also saw a great change in the growth of sales; in March they were running 42.0 per cent ahead, while in April they were down 6.8 per cent. Department and clothing stores also experienced slight declines in April sales compared with one year earlier.

In spite of the low April figures, Ontario's retail trade so far this year has continued to record a substantial increase over last year. During the first four months of 1966, sales were up 10.4 per cent. For the nation as a whole the increase was 9.2 per cent.

Consumer Prices

The Consumer Price Index, at 143.2 at the beginning of May (based on 1949 = 100), was 3.9 per cent higher than May 1965, according to the Dominion Bureau of Statistics. May prices reflected a 0.1 per cent increase from the previous month. The most pronounced increase — 1.0 per cent — came in the recreation and reading component, due to higher prices for theatre admissions, camera film, bicycles and toys. Health and personal care showed the next-highest increase. Higher prices for men's haircuts and women's hairdressing led to a 0.8 per cent increase. Food and housing, the two major components of the Index, increased to 143.8 and 144.2, gains of 0.1 per cent and 0.3 per cent respectively. Higher prices for automobiles, gasoline and train fares produced a 0.3 per cent increase in the transportation component. Tobacco and alcohol edged up 0.1 per cent. The clothing index was the only one to fall, declining 0.2 per cent from April to May.

On a regional basis, the indexes for Ottawa and Toronto increased a slight 0.1 per cent. Centres in the four western provinces all experienced greater increases. In Toronto, food and clothing declined, tobacco and alcohol held steady, and all other components rose. In Ottawa a similar pattern was observed as food and clothing declined and the other components rose.

Domestic and Foreign Investment

Ontario's views on investment were presented recently in an address by John P. Robarts, Prime Minister of Ontario.

Mr. Robarts pointed out that the achievement of two things necessary for adequate economic growth — increased capacity and rising productivity — depended to a significant degree on a high rate of investment. In Ontario, which accounts for over one-half of Canada's manufacturing shipments, manufacturing investment over the three-year period 1964-1966 has increased by 108 per cent. Still there is need for more business investment: we need a high level of investment, particularly in the automotive and related industries, and in industries producing construction materials.

The question of the desirability of foreign investment must be viewed within such a context. Has Canada provided sufficient investment funds out of its own savings? In 1965 it did not. That year national saving represented a relatively large proportion — 20 per cent — of GNP, yet private domestic investment was an even larger 21.9 per cent. (In the United States, on the other hand, saving and private domestic investment represented 16.3 per cent and 15.6 per cent of GNP respectively.) As a result Canada was a net importer of capital, using the capital to finance the excess of investment over saving. Clearly this inflow helped to provide the healthy climate which produced such an impressive rate of economic growth last year.

It is often contended that foreign investment in Canada should be more in the form of debt instruments and portfolio investment rather than direct foreign investment. Yet in 1964 — the latest year for which information is available — more than 75 per cent of U.S. long-term capital flowing into Canada was for the purchase of debt or portfolio securities, not direct investment. In actual fact the flow of direct foreign investment has declined over the past several years. In 1960 it was valued at $650 million; in 1965 it was $390 million — a reduction of 40 per cent. As a percentage of GNP it has declined from 1.7 per cent to 0.7 per cent.

A little-known fact is that, despite our small population, Canada's direct investment abroad in the past three years has amounted to 42 per cent of the direct investment flowing into this country.

Is foreign investment bad from an economic point of view? It is difficult to see how. In fact, it has provided for Canada high quality management, advanced technology and the results of research and development programs, and a chance to participate in a high-productivity modern economy. In addition foreign-owned manufacturing firms in Ontario have for the most part reinvested their savings to provide for their own expansion. As a result, they themselves have been very important contributors to both increasing capacity and raising productivity in Ontario.

PROGRESS UNDER THE AUTOMOTIVE FREE TRADE AGREEMENT: SOME COMMENTS

Reed T. Cooper
Chief, Industrial Research Section, Trade and Industry Branch
Ontario Department of Economics and Development

INTRODUCTION

On January 18, 1965, the Automotive Free Trade Agreement between Canada and the United States was initiated. In Canada an Order-in-Council at that time made it immediately effective. In the United States the Senate ratified the Agreement on October 8, 1965, making it retroactive to January 18, 1965 as well.

Provisions of the Agreement

Under the terms of the Agreement the United States was permitted to import duty-free those motor vehicles and original equipment parts produced by Canadian motor vehicle manufacturers. Canada for its part permitted automotive producers in Canada — who qualify under the tariff provision — to import duty-free from all countries motor vehicles and parts used in their manufacture.

Duty-free entry to Canada was made available only to motor vehicle producers and to parts makers producing components on order from vehicle producers. Components for the replacement market were specifically excluded; in their case the existing tariffs still applied.

In order to qualify as a motor vehicle manufacturer under the new Agreement, a producer had to continue producing vehicles in Canada in the same ratio to his vehicle sales in Canada as he had achieved during the period August 1, 1963 to July 31, 1964.

The motor vehicle manufacturer was also required to maintain the proportion of Canadian value added(1) in his Canadian vehicle production at least equal to that attained during the same base period. In calculating the Canadian value added content, only those elements of cost which were actually expended for Canadian goods and services were to be included, both in the base year and in subsequent years.

Other Considerations

Behind the Agreement have been firm but private assurances by the Canadian subsidiaries of the parent United States motor vehicle producers that they would not only maintain their existing share of an expanding North American market, but by the

---

(1) Value added represents the value of the final vehicles less the cost of materials and fuel and electricity consumed in their production.

1968 model year — and each year thereafter — they would expand their total production from four per cent of the North American total to 7.5 per cent. It was estimated that by 1968 the value of the expansion in production of motor vehicles would be about $260 million.

At the time of the announcement of the new Agreement, Canada's annual automotive trade deficit was in the neighbourhood of $640 million, and its position was deteriorating rapidly. Canada was producing about four per cent of the North American automobile market but consuming about 7.5 per cent of it.

On June 28, 1965, the Government of Canada announced a two-part supplement to the Agreement as it applied to Canada. In the first part it agreed to provide loans at six per cent interest to help auto parts manufacturers expand production. This would enable them to meet the anticipated demand for parts resulting from the Agreement. In the second part it provided for assistance benefits to workers laid off temporarily because of plant reorganization. These benefits, including all unemployment benefits and government assistance, would range from 62 per cent to 75 per cent of the workers' straight-time pay.

The new Agreement was to be of unlimited duration, but contained a provision that the entire program would be reviewed in 1968.

RESULTS OF THE AGREEMENT SO FAR

With the Agreement now in effect for more than one and one-half years, it is possible to survey at least some of the changes in Canada's automotive industry accruing from it.

The following discussion deals with first the advantages and then disadvantages resulting from the Agreement.

Advantages

As a result of the Agreement, automotive production and sales have risen sharply. In 1965 Canadian automobile production increased 27.5 per cent over the previous year — establishing a new record. It also represented the fourth straight year of production increases. Exports of automotive products to the United States increased by 133 per cent, rising from $99 million in 1964 to $231 million in 1965. Automobile parts production in Canada in 1965 rose 21 per cent from the previous year.

In Ontario, over $365 million of additional investment has been earmarked for new automotive plant and equipment, giving rise to about 13,000 additional jobs. Details on a regional basis are provided in the accompanying table. At the end of 1965, construction and purchases valued at approximately $154 million had commenced, and more than 8,000 additional jobs had been created.

One of the largest single items was the announcement by Ford Motor Company of its intention to construct a $65 million automobile assembly plant at Talbotville. An estimated 1,000 construction workers will be employed in building the plant in the summer of 1966. It has also been estimated that, once completed, the impact of the employment and additional income generated in the area will result in an annual increase in retail sales of about $50 million. The construction of a large pipeline from Lake Erie to supply water for the plant has also been initiated. Finally, when completed, the plant will require about 1,300 factory workers and 200 office workers from the surrounding area, chiefly from London and St. Thomas.

Under the terms of the Agreement, an additional 3.5 per cent of total North American automobile production is to be undertaken in Canada. The proposed new plant at Talbotville is a clear indication that productive capacity is indeed being increased to meet this objective. There have also been other additions to plant capacity by the "Big Three" auto manufacturers. These include a $12 million project by Chrysler, expanding its passenger car and truck facilities in Windsor; Ford's $50 million re-tooling, realignment, and modernization of engine and foundry plants at Windsor, and its new $25 million truck plant at Oakville; and General Motors' new $20 million trim plant in Windsor.

The Agreement has also given a new dimension to the Canadian automotive parts industry. For the first time in Canadian automotive history, plants are being constructed to produce automobile frames. This has been initiated by the Budd Automotive Company of Canada which has already started the construction of an estimated $20 million plant in Kitchener. Hayes Steel Products Limited has also announced its intention to construct a similar plant in Thorold. The Thorold and Kitchener plants will not only increase the domestic demand for steel but will help to replace some of the large import items that contributed to the imbalance of trade in automotive parts between Canada and the United States. The Budd Company will initially produce about 500,000 frames a year and employ 750 workers. Hayes Steel is expected to turn out about 300,000 frames a year, employing an additional 450 workers.

AUTOMOTIVE INVESTMENT IN ONTARIO, STARTED AND ANNOUNCED(1), SINCE THE COMMENCEMENT

of the

AUTOMOTIVE FREE TRADE AGREEMENT ON JANUARY 18, 1965

Economic Region	*Number of Major Investments*	*Employment Created(2)*	*Capital Investment(3)*	*Percentage of Investment*
	No.	*No. of Jobs*	*$*	*%*
Eastern	1	32	—	—
Lake Ontario	6	510	5,650,000	1.6
Metropolitan	31	2,595	67,256,500	18.4
Niagara	25	1,623	25,988,677	7.1
Lake Erie	13	1,825	80,074,000	21.9
Lake St. Clair	53	4,940	146,820,855	40.2
Mid-Western	15	833	31,835,683	8.7
Georgian Bay	8	803	7,775,000	2.1
Northeastern	—	—	—	—
Lakehead-Northwestern	1	—	—	—
TOTAL	153	13,161	365,400,715	100.0

(1) As of April, 1966.
(2) Employment figures cover only 72 out of 153 companies.
(3) Capital investment figures cover only 118 out of 153 companies.

Source: Trade and Industry Branch,
Department of Economics and Development.

Another result of the new Agreement has been a trend to concentration on front end parts production in Canada. This is illustrated by both Chrysler's and American Motors' intentions to expand their facilities to produce engines in Canada, and Ford's complete modernization of its plant at Windsor. McKinnon Industries in St. Catharines, a prime supplier for General Motors, has also expanded its facilities.

Yet another effect of the new Agreement has been the expansion of trim facilities in Canada. Allan Industries Canada Limited is constructing a large trim plant near Hamilton, and, as already mentioned, General Motors is building a trim plant in Windsor.

The indirect effects of the new Agreement have also been substantial. There have been announcements of additional plant capacity — to supply the increased automotive demand — by industries producing steel, plastics, rubber, textiles and glass. Both the Algoma Steel Corporation Limited of Sault Ste. Marie and the Steel Company of Canada in Hamilton and Toronto have announced huge plant expansions, made necessary by increased automobile production in Canada. Multi-million dollar additions to capacity have also been undertaken or announced by the Dominion Rubber Company of Canada Limited in Kitchener, and the Goodyear Tire and Rubber Company Limited in Collingwood and Chatham. Both Polymer Corporation Limited of Sarnia and Canadian Industries Limited have also announced huge expansions in their plastics division as a result of the new Automotive Free Trade Agreement. Finally, Pilkington Brothers plans a large expansion project in its plate glass operations to help meet the increased demand from the automotive industry.

Disadvantages

One of the chief disadvantages of the Automotive Free Trade Agreement between Canada and the United States is the precarious position in which some Canadian automobile parts producers have been placed. The fear is that large parts makers in the United States or their branch plants in Canada will take away most of the business enjoyed by Canadian independents. The Canadian firms are no longer protected by tariffs and the motor vehicle manufacturers have announced that they will arrange for contracts on a competitive basis only. This difficulty has been augmented by the fact that the purchasing departments of the "Big Three" are now located primarily in Detroit.

Despite the recent removal of the 11 per cent federal sales tax on tools, dies, jigs, and fixtures — used to produce cars and car parts — the major purchases of capital equipment to be used in the industry will not benefit until April 1, 1967, when the tax will be cut to six per cent. The tax will be eliminated completely one year later on April 1, 1968. Yet during the next two years, when Canadian parts manufacturers attempt to expand their production facilities, this tax on machinery purchases will continue to leave Canadian producers at a disadvantage compared to their United States counterparts who do not pay such a tax. One of the intentions of the new Agreement is to provide equality of opportunity between Canadian parts manufacturers and their counterparts in the United States. To a certain extent the disparity is offset by a 7.5 per cent discount on the Canadian dollar in terms of United States currency. However, it has been calculated that despite the lower average wage rates in the industry and the dollar discount, average costs for the Canadian firms are about 15 per cent higher than they are in the United States.

Although the United Auto Workers' contracts with the automotive companies are not scheduled for renewal until 1967, the union has stated it will demand that workers in Canada receive wage parity with their fellow workers in the United States. If this occurs before costs in Canada are reduced for all other aspects of automotive production, then the Canadian plants will be at a further disadvantage. However, the U.A.W. has stated that it will tie-in its demand for wage parity with productivity in the industry.

Imports of automotive products have continued to expand, but because of the greater flow of exports, the expansion in the trade deficit of these products is somewhat less than it would otherwise have been. For 1965 the imbalance in motor vehicle trade was $799 million. Also, for every passenger car imported from the United States at the present time, one Canadian passenger car is now exported.

It is feared that, due to the continental re-organization taking place, the small parts firms will lose business to their already more-efficient U.S. counterparts. (Prior to the new Agreement the higher premium prices charged by the Canadian firms were acceptable because of the tariff wall and Canadian content requirements. This permitted the continued existence of many small firms.) To a certain extent these fears have been allayed, because under the terms of the new Agreement Canadian auto manufacturers must maintain a Canadian value added in their Canadian vehicle production at least equal to that attained in the base year. This amounts to roughly 60 per cent of total production. It is therefore assured that some Canadian parts will be purchased in Canada.

So far Canadian parts producers have not fared badly. According to industry sources, most parts producers have enough orders to carry them through the 1967 model year. It is also worth remembering that Canadian parts production expanded by 21 per cent from 1964 to 1965.

It was understood that motor vehicle manufacturers would begin to order parts under the new reorganization commencing with the 1967 model year, but it now appears that the more severe adjustment will not take place until contracts are drawn up for the 1968 model year — in the spring of 1967. Certain features have, however, come to light. Some of the small operations have reported that their usual contracts were not renewed this year. How much the withdrawal of these contracts will affect overall production remains to be seen. Talks with companies that have already lost orders have revealed that although they lost single contracts, they retained others. In some cases this was expected. To compensate for losses, several firms have sought additional orders outside the automotive industry.

It is also feared that a large part of the Canadian content commitments will be fulfilled by expanded automobile manufacturing in Canada and by the production of high-dollar-value parts, such as frames and engines. Many of the smaller parts will then be imported duty free from the more efficient United States plants.

Prices

The final objective of the new Automotive Free Trade Agreement is that there should be a progressive narrowing of the price differentials between comparable Canadian and U.S. model cars, resulting from the cost savings of longer production runs. Some improvement has already taken place.

The most meaningful comparison is between factory wholesale prices in Canada and the United States, net of all federal and provincial or state taxes, transportation costs, and adjusted for the exchange rate. For the 1965 model year, the average difference in prices between popular Canadian and U.S. cars was somewhat less than $150, or eight per cent. For the 1966 model year the difference ranged between three per cent and five per cent.

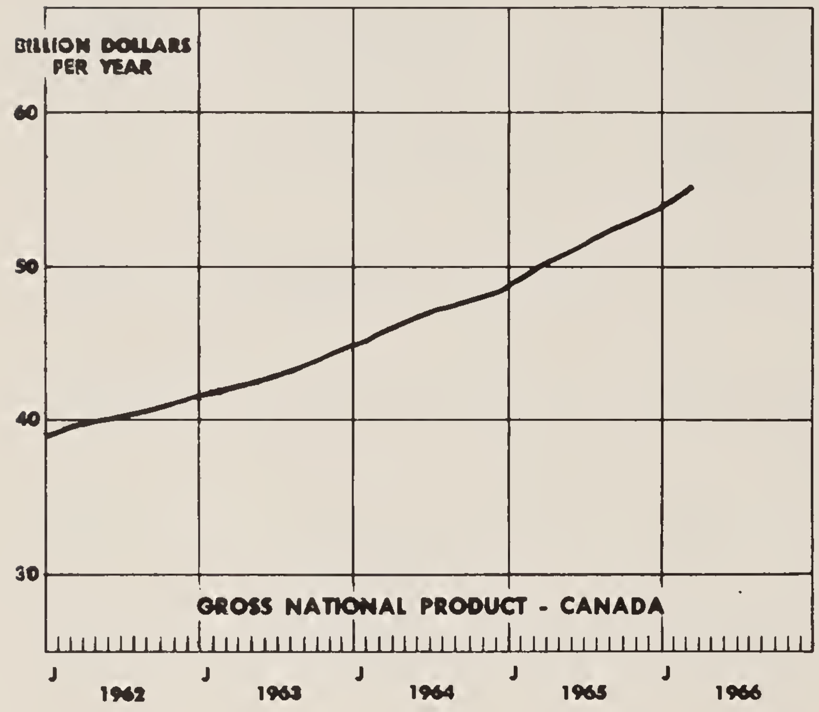
As the objectives of the Agreement are progressively achieved and production is organized on a continental basis, we should expect a further narrowing of the price differentials.

ONTARIO ECONOMIC INDICATORS - SEASONALLY ADJUSTED

(* Figures for Canada)

		1965									1966				
		April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May
LEADING INDICATORS															
Average Weekly Hours Worked in Manufacturing	(No.)	41.5	41.0	41.3	40.8	40.9	40.7	41.1	41.4	42.2					
New Dwelling Unit Starts	(No.)	3,848	5,010	5,806	4,770	7,377	4,464	3,764	4,708	4,634	5,805	5,061	4,634	3,266	4,444
Business Failures	(No.)	67	87	65	63	83	79	70	71	69	72	76	91	66	76
Business Failures - Liabilities	$ Million	4.0	5.3	4.6	4.0	20.7	9.5	2.6	3.4	3.2	4.9	7.3	5.1	9.1	5.3
New Orders in Manufacturing*	$ Million	2,827	2,834	2,829	2,849	2,909	2,897	3,005	3,014	3,103	2,996	3,123	3,141	3,071	
Housing Contracts	$ Million	67.3	53.7	70.9	76.2	59.1	44.3	56.6	68.9	51.9	46.4	46.4	79.6	50.8	
Business, Industrial and Engineering Contracts	$ Million	109.3	117.9	135.9	127.8	115.0	155.7	98.1	87.6	125.8	101.8	162.8	218.2	109.4	
Money Supply*	$ Million	18,557	18,683	18,716	19,172	19,639	19,654	19,786	19,747	19,770	19,758	19,814	19,993	20,184	20,132
T.S.E. Index - 77 Stocks	1956=100	171.1	169.5	163.0	163.9	166.8	171.4	174.2	167.7	168.1	171.2	169.8	167.1	164.9	
COINCIDENTAL AND LAGGING INDICATORS															
New Dwelling Unit Completions	(No.)	7,115	4,518	4,019	2,153	4,075	3,269	2,830	3,825	4,570	5,553	4,382	5,230	6,994	
Average Hourly Earnings in Manufacturing	$	2.23	2.22	2.23	2.23	2.23	2.26	2.28	2.29	2.26					
Gross National Product*	$ Million	- -	- -	51,324	- -	- -	52,704	- -	- -	53,760	- -	- -	55,712		
Cheques Cashed in Clearing Centres	$ Million	4,127	4,211	4,097	4,184	4,634	4,287	4,313	4,363	4,526	4,687	4,476	4,518		
Retail Trade	$ Million	659	672	665	672	669	667	694	703	697	695	715	780	645	
Labour Force	000's	2,594	2,607	2,626	2,626	2,642	2,608	2,605	2,621	2,641	2,675	2,672	2,686	2,709	2,707
Employed	000's	2,522	2,536	2,548	2,556	2,574	2,541	2,556	2,562	2,582	2,612	2,612	2,629	2,653	2,638
Unemployed	000's	72	71	78	72	68	67	49	59	59	63	60	57	56	69
Unemployed as % of Labour Force	%	2.8	2.7	3.0	2.7	2.6	2.6	1.9	2.3	2.2	2.4	2.2	2.1	2.1	2.5
Wages and Salaries	$ Million	849	854	861	868	874	888	895	908	917	924	936			
Industrial Employment	1949=100	139.8	140.1	140.5	140.7	140.9	142.5	143.3	144.8	145.7					
Total Industrial Production*	1949=100	248.8	250.3	251.6	254.9	258.2	260.2	261.6	264.0	268.6	268.9	271.5	274.0	274.2	
Total Manufacturing		224.1	227.3	228.1	231.3	232.8	233.7	237.1	237.6	242.5	243.3	244.6	247.0	247.5	
Non-Durables		217.7	222.2	221.0	225.2	226.3	227.1	230.2	229.1	234.7	235.5	236.8	240.2	239.3	
Durables		231.6	233.2	236.3	238.5	240.4	241.5	245.0	247.5	251.6	252.5	253.7	255.0	257.0	
Mining		361.4	350.3	355.4	360.7	373.9	383.7	362.2	377.8	385.0	372.7	387.1	390.4	392.0	
Electric Power and Gas Utilities		437.1	434.9	437.6	438.8	451.5	456.0	471.2	478.0	471.6	488.9	490.7	492.7	485.5	
Primary Energy Demand (Annual Rate)	BKWH	42.52	42.14	43.06	42.59	43.67	44.51	44.98	46.11	45.50	46.71	46.60	46.88	46.62	48.61
ECONOMIC INDICATORS NOT SEASONALLY ADJUSTED*															
Domestic Exports	$ Million	645.0	745.7	717.6	770.4	685.7	701.0	772.0	897.1	795.5	722.9	674.5	768.7	753.2	
Imports for Consumption	$ Million	698.2	736.9	794.7	732.3	660.5	724.7	763.6	895.3	786.9	703.9	660.9	825.1	765.3	
Foreign Exchange Reserves	US $ Million	2,567	2,499	2,480	2,492	2,598	2,614	2,644	2,681	2,665	2,562	2,548	2,510	2,469	2,412
Prices, Industrial Materials	1935-39=100	256.6	258.5	260.4	259.5	260.9	260.4	259.3	259.4	261.3	265.4	267.9	264.6	264.7	

ECONOMIC INDICATORS–SEASONALLY ADJUSTED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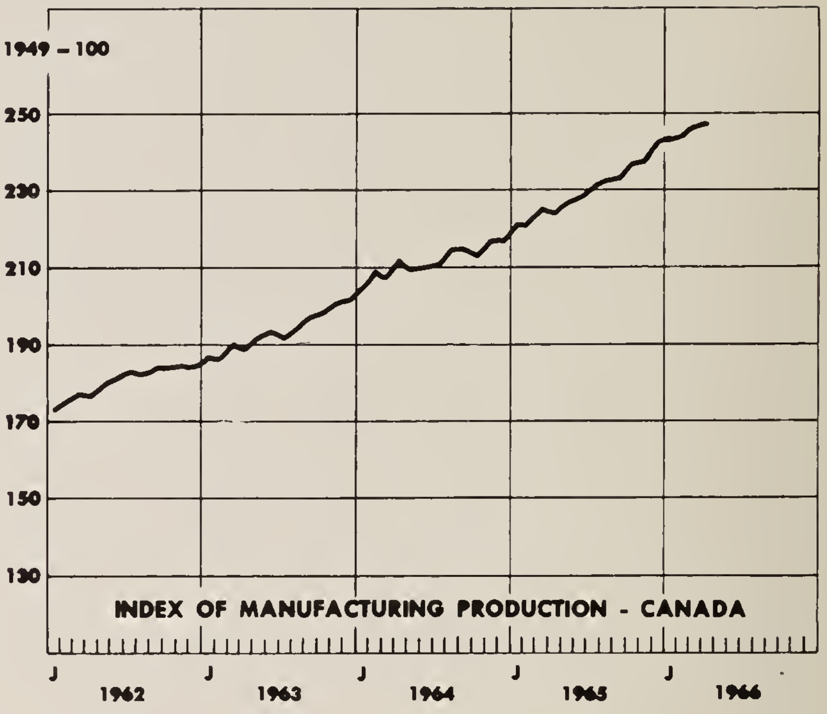
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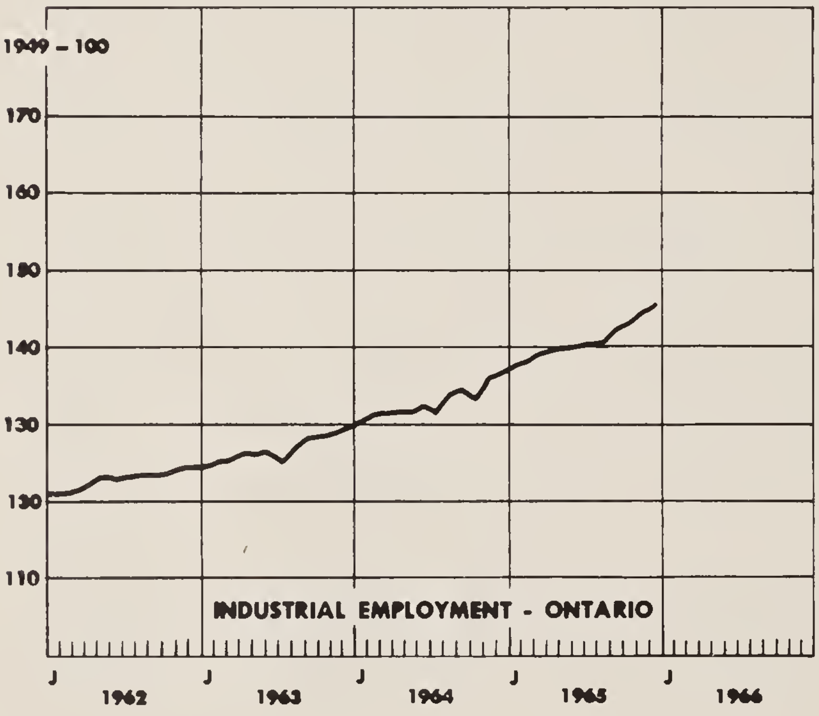
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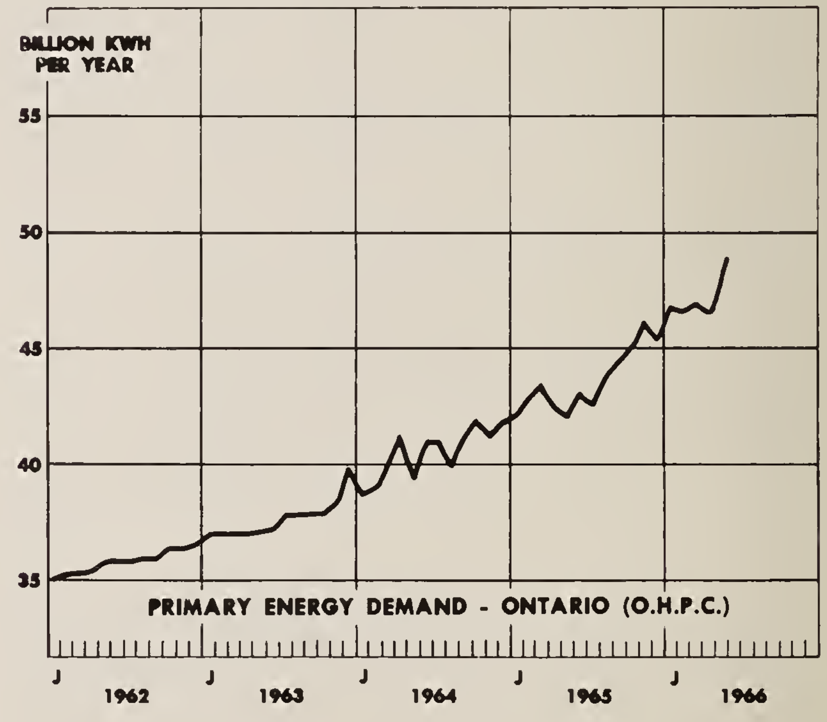
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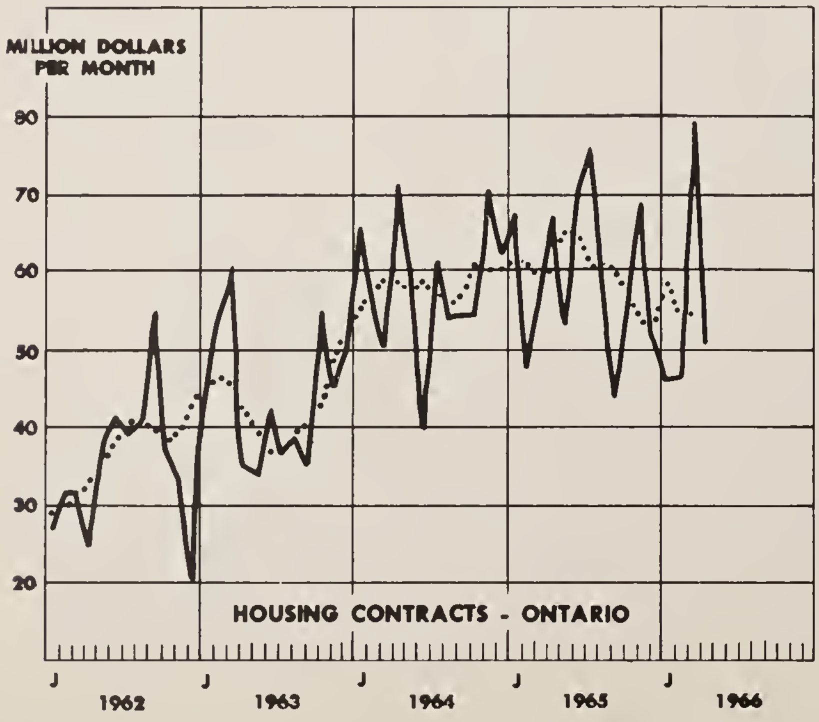
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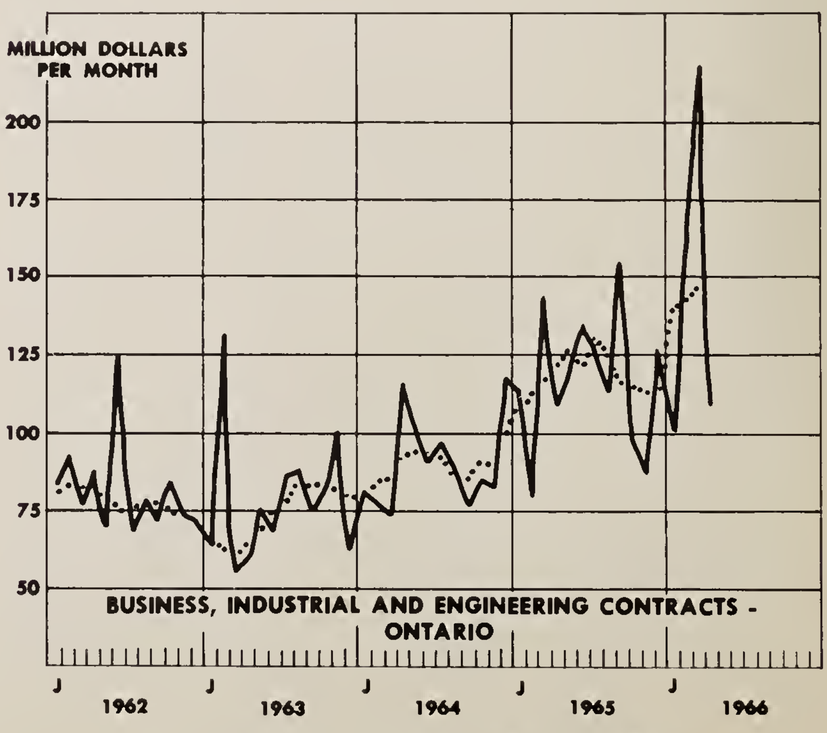
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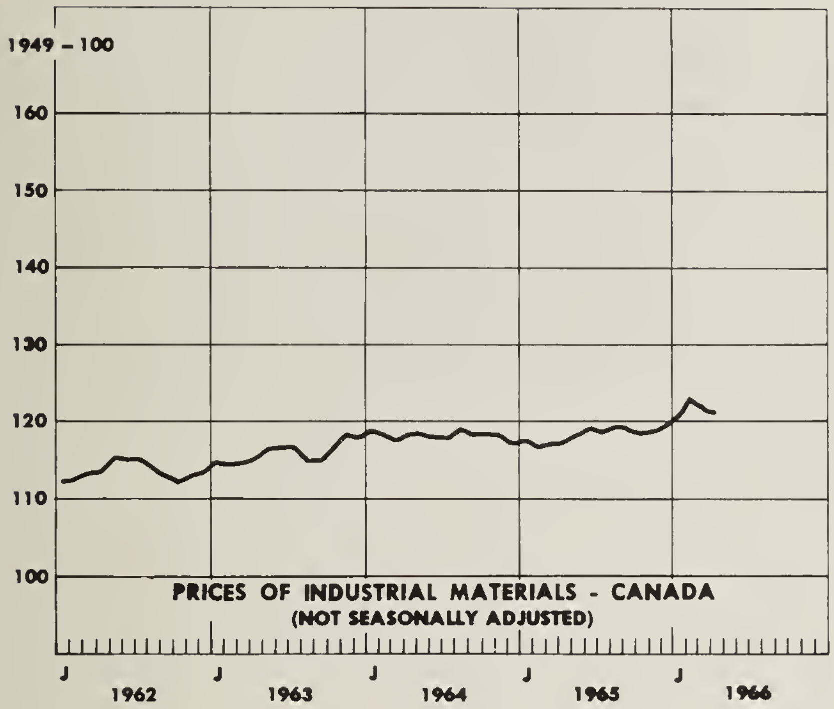
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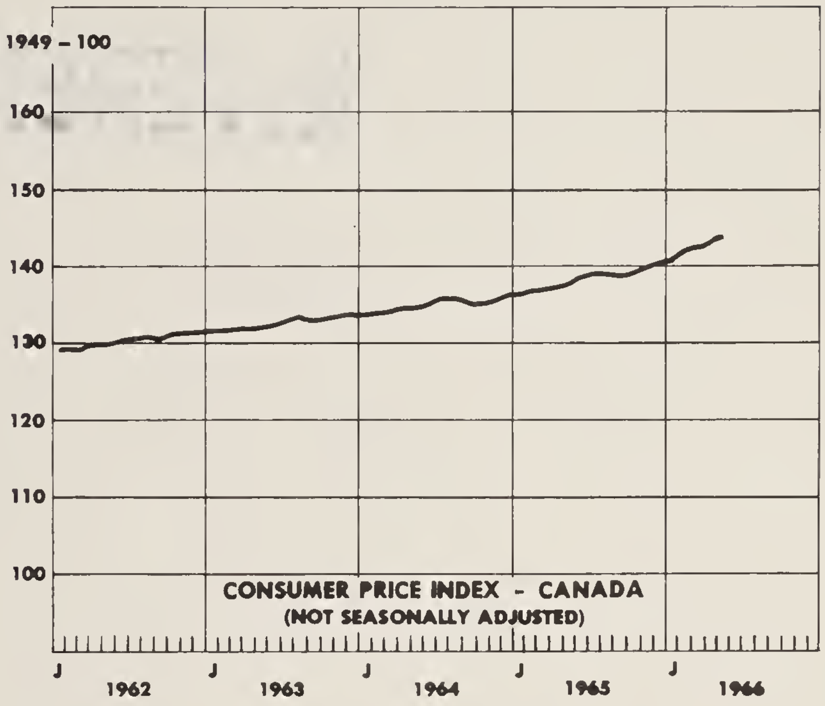
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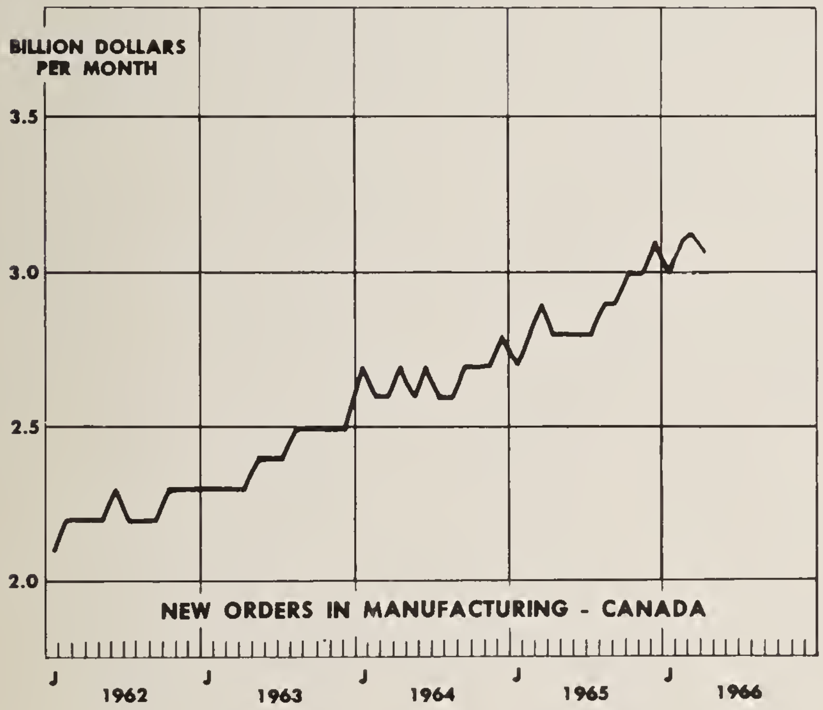
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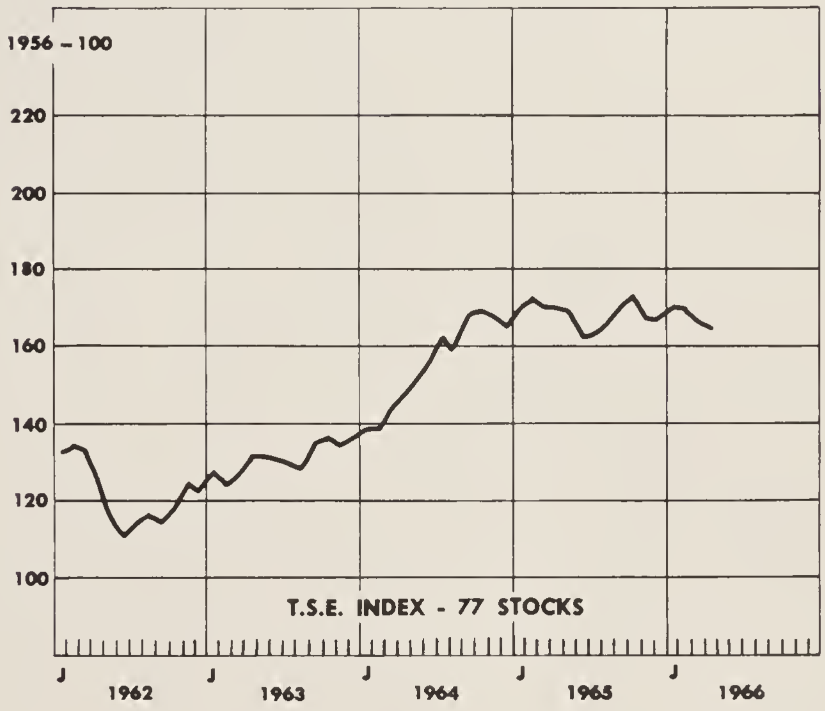
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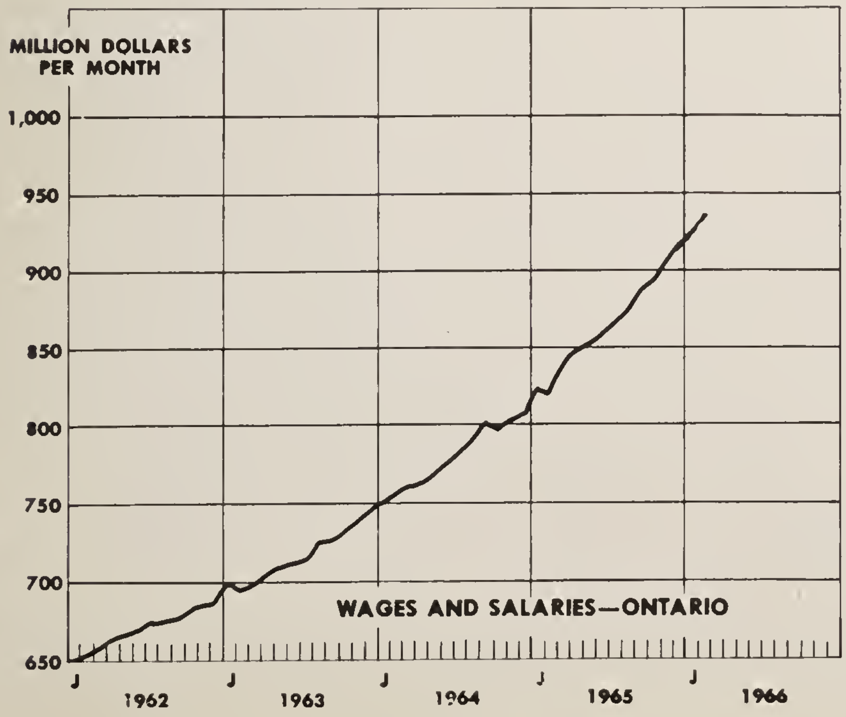
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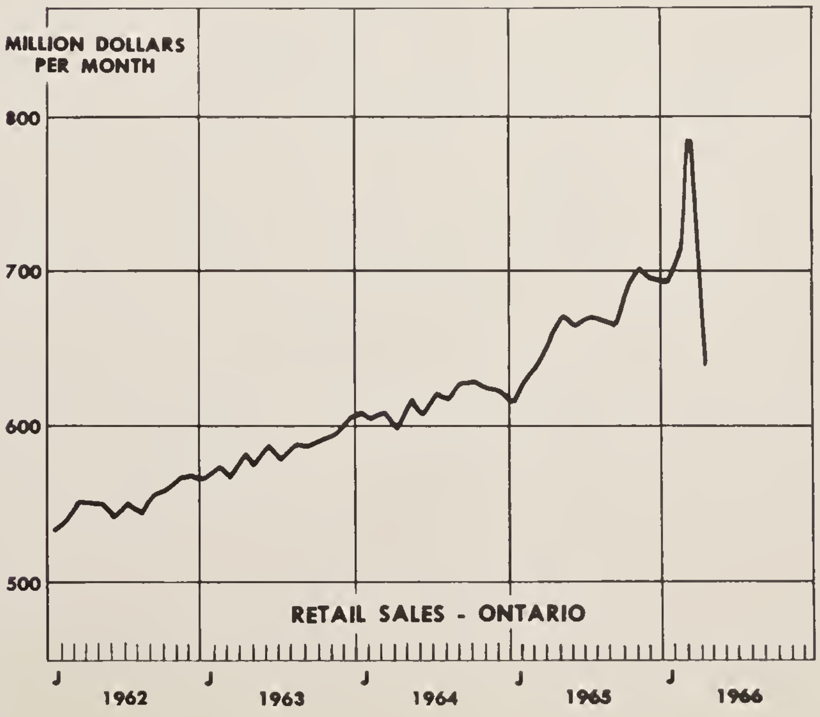
RETAIL SALES - ONTARIO

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DEPARTMENT OF ECONOMICS AND DEVELOPMENT

Hon. Stanley J. Randall, Minister

Stuart W. Clarkson, Deputy Minister

OFFICE OF THE CHIEF ECONOMIST

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Ont. Ministry of Treasury, Economics & Intergovernmental Affairs
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THE ONTARIO ECONOMY

The very rapid pace of economic activity in Ontario and the nation as a whole eased in the second quarter of 1966. The more moderate growth rate was achieved principally through the further tightening of credit conditions, easing slightly the pressures on available resources. As a result, production — though still well ahead of last year — began to level off, with the Index of Industrial Production rising 0.4 per cent from April to May. In construction, where growth has been particularly strong in recent years, the impact of tighter credit conditions has been most apparent. Residential construction contracts — particularly for apartments buildings — have been down for some months now, while business, industrial and engineering contracts have dropped sharply in the past few months.

The moderating effect was also felt in retail trade with April and May sales dropping off sharply from the record month of March.

The employment situation in Ontario remained good in June. The number of people employed was recorded at 2,651 thousand, seasonally adjusted, reflecting an unemployment rate of 2.9 per cent.

Production

Production of steel ingots, unadjusted for seasonal variations, was recorded at 855.0 thousand tons in June, an increase of 2.9 per cent over June 1965. However, when the first six months of 1966 and 1965 are compared, the 1966 value of 5,127.8 thousand tons reflects a larger gain of 5.4 per cent.

Canada's seasonally adjusted Index of Industrial Production (based on 1949 = 100) rose a slight 0.4 per cent from April to May, reaching a level of 275.6. The restraint on growth was largely due to a decline of 0.7 per cent in durable goods manufacturing and only a marginal increase of 0.2 per cent in non-durables production. Mining and electric power and gas utilities both increased more rapidly, rising 1.3 per cent and 4.6 per cent respectively over the one month period.

The decline in durables was triggered by lower automobile sales in Canada and the United States. As a result motor vehicle production dropped 7.7 per cent from April to May as inventories built up. The entire transportation equipment component of durable goods fell almost four per cent below the April level. There was also a decline of 1.6 per cent in the iron and steel products category, attributable to the 5.1 per cent decline in primary iron and steel production. This decline was partly in response to new appraisals of long-run automotive requirements and partly due to the more moderate growth of construction industry requirements.

In spite of the relatively small increase in the Index from April to May, the May level was still 10.1 per cent higher than May of last year. Total manufacturing was 8.7 per cent ahead with durables and non-durables ahead 8.9 per cent and 8.6 per cent respectively. Mining was up 13.8 per cent and electric power and gas utilities 16.7 per cent.

Ontario's manufacturing shipments in May were valued at $1,648.7 million, 6.7 per cent ahead of last May's $1,545.3 million. The increase was due mainly to gains in paper and allied industries, primary metals, metal fabricating and electrical products. The 1966 value for the January to May period was $7,952.4 million, a gain of 11.2 per cent over the comparable period last year.

Construction

Construction contract awards in Ontario during the month of June were down rather markedly from last June, according to the *Southam Building Guide.* Total awards, unadjusted for seasonal variations, were valued at $179.4 million, a decline of $85.8 million or 32.3 per cent.

All types of construction were down from last year, mainly because of tightened credit conditions. Most noticeable was the reduction in residential construction, down from $95.5 million last June to $55.7 million this June. Most of the decline was accounted for by the reduced value of apartment construction awards.

Actual housing starts during June in Ontario centres of 5,000 population and over were down 34.5 per cent from last June. Starts numbered 5,048 compared with 7,705 last June. In Metropolitan Toronto (census area), which accounts for about half of the starts in the province, they were down almost 40 per cent to a level of 2,698. Completions across Ontario numbered 5,843, while the number of dwelling units under construction at June 30th was 47,420 compared to 43,271 a year earlier.

"Big Jobs" in Ontario — contract awards of $1.0 million or more — were valued at $65.5 million in June. The following table gives the nature and location of many of the awards:

LARGE CONSTRUCTION AWARDS PLACED RECENTLY IN ONTARIO

Location	*$ Million*	*Description*
Ajax	2.6	Plant addition
Amherstburg	1.5	High school addition
Barrie	2.5	High school
Burlington	2.0	Plant
Collingwood	5.6	Yarn plant and tufting mill
Cornwall	4.5	Methanol chemical plant
Espanola	1.2	High school addition
Exeter	2.5	High school addition
Hagersville	1.3	High school
Hamilton	2.3	Hospital addition
Hamilton	3.0	Plant addition
New Toronto	7.0	Rolling mill addition
Niagara Falls	1.7	High school
Oakville	1.0	Apartments
Oshawa	1.5	Plant addition
St. Thomas	2.0	Factory addition
Sudbury	1.0	School addition
Toronto	4.4	Trunk drain and storm sewer
Toronto (metro)	4.5	Housing and apartments
Yarmouth Twp.	75.0	Auto assembly plant (initial work)

Source: Southam Building Guide.

The 1966 six-month total for construction activity also reflects the easing of building and the slight moderation of pressures in the construction industry. Construction contract awards, at $1,046.6 million, were down 0.4 per cent from last year, while the number of housing starts in the province was 15 per cent below last year. However, the six-month total for dwelling unit completions this year, at 26,435, was running about 1,500 ahead of the comparable 1965 period.

Retail Trade

Ontario's retail sales in May, not adjusted for seasonal variations, rose a slight 3.1 per cent from the relatively inactive month of April. Sales were recorded at $685.5 million. Compared with May 1965 retail trade has declined by 4.0 per cent. The slump in motor vehicle sales — down 19.9 per cent from last May — has been an influential factor. Foremost among the reasons for the slump in automobile sales have been tighter credit conditions and a saturated used car market — the result of heavy automobile purchases during the past few years.

Sales of food, department and clothing stores have generally declined from last year as well. Only drug, jewellery and variety stores showed impressive gains of between five and eight per cent.

In spite of generally low sales in April and May, total retail sales for the first five months of 1966 reflect a substantial increase over the same period last year. In the January-May period sales were $3,318.9 million, 7.1 per cent higher than in 1965. All categories were higher, with building materials, hardware and furniture showing increases in excess of 10 per cent. Motor vehicle sales — so active in the first three months of 1966 — have risen only 2.4 per cent in a comparison of five-month figures.

Finance

Noticeably higher interest rates — associated with increasing credit restraints — prevailed throughout the first half of 1966. Consequently, as the demand for funds has built up through postponement of borrowing, there has developed a general reluctance to commit short-term funds. The day-to-day loan rate has fluctuated within close proximity to the rediscount rate. This in turn has forced many dealers to resort to the Bank of Canada to meet many of their daily obligations. Tight credit conditions have led a number of finance companies to raise the interest rate they are prepared to pay on 90-day money to 6⅛ per cent and to 6¼ per cent for 90-day to one-year notes.

The market for new bond financing clearly reflects the degree to which borrowing has been postponed. New issues totalled only $2,064.1 million in the first half of 1966, compared with $2,154.3 million for the corresponding period in 1965. An increase in borrowing by provinces, municipalities and corporations was more than offset by a decline in federal financing. The prevailing high level of interest rates has discouraged borrowers, while a shortage of funds in the market has made it difficult to place new offerings.

Prices of outstanding issues in all sectors of the Canadian bond market have now ebbed to about the lowest level ever reached. For instance, the Government of Canada 4½ per cent 1983 bond issue was recently quoted at an $86 bid, a loss of some $3.00 or 3.4 per cent since the beginning of 1966.

Prices of quality industrial equities, along with those of lower quality in related industrial sectors, displayed a decided degree of uncertainty in the first half of the year. However, while prices have generally tended to decline, the market's range of fluctuations and the value of losses have been less than in New York. At the end of June, the Toronto Stock Exchange Industrial Index had fallen to a level of 161.97, a decline of some 6.59 points or 3.9 per cent since the beginning of the year. It is increasingly apparent that high interest rates have diverted considerable amounts of money from the equity market to bonds and other debt obligations. A number of institutions such as mutual funds have temporized in order to build up their cash positions in anticipation of opportunities to acquire equities at lower prices.

Canada's foreign exchange reserves (official holdings of gold and U.S. dollars) were valued at some US$2,341.8 million at the end of June, largely because of a series of transactions in which Canada repurchased over $140 million of U.S. held Canadian bonds. This represented a reduction of $322.7 million since the end of 1965. It was necessitated by the United States-Canada agreement that obliges Canada to keep these reserves – including IMF credits – below a $2.6 billion total, in exchange for an exemption from a number of specific United States guidelines and restrictions on the outflow of U.S. funds. Thus, at a total reserve position of US $2,595.1 million, Canada has for the first time managed to bring its reserve position below the stipulated maximum.

The value of the Canadian dollar has held steady with fluctuations confined within a very narrow range – despite Canada's relative inaccessibility to international capital funds so far this year. New sizeable wheat contracts with Russia can be expected to support our reserve position and the strength of the Canadian dollar during the rest of this year. In terms of U.S. funds, the present quoted value of the Canadian dollar at 92.98 cents is less than 0.02 cents below its value at the close of 1965.

Ontario Agricultural Review and Outlook*

(i) Review of 1965

The physical volume of Ontario's agricultural production reached a new record in 1965, surpassing the record year 1964 by four per cent. Combined with a substantial increase in the price index for farm products – an increase which took that index to the highest level since 1951 – the gross value of agricultural production reached $1,515.1 million, 8.5 per cent more than the previous year.

Operating and depreciation charges rose four per cent last year – a lower rate than in previous years. Prices of commodities and services purchased by farm operators went up 3.9 per cent, with the largest increases in the prices paid for hired labour, building materials and fertilizer. Consequently total net income from agricultural production rose to $412 million, 16.2 per cent more than in 1964.

The area under field crops last year remained substantially unchanged at 7.7 million acres. While serious winterkill affected winter wheat, reducing both acreage and yield, acreage in spring gains rose, with yields higher than average. Acreage of soybeans, corn and white beans also increased. High tobacco acreage – the largest in several years – resulted in a farm value of just over $100 million. Total farm value of all field crops was $553 million, about $42 million more than in 1964. Forage supplies were reduced quite seriously in 1965, particularly in Eastern Ontario, where severe drought conditions reduced yields and poor harvesting weather deteriorated quality.

Livestock was the most active sector of the agricultural industry, with prices of virtually all meats increasing (mainly in response to prices in the United States). Although the number of cattle graded in Ontario was up 14 per cent from 1964, prices averaged about $1.50 more. Hog slaughterings declined six per cent, and prices increased eight dollars per hundredweight.

During 1965, production of broilers rose five per cent, turkey production almost 10 per cent. The generally strong market for red meats kept up prices for both poultry meats, raising total value from $71 million to $78 million. In eggs the extremely low prices at the beginning of 1965 resulted in a drastic production cut-back during the latter half of the year. As a result production for the year was off by about four per cent, prices strengthened, and the farm value of egg production rose from $53 million to $57 million.

**Prepared by the Farm Economics, Co-operatives and Statistics Branch, Ontario Department of Agriculture and Food.*

Milk production rose only 1.5 per cent in 1965 — less than the population increase — to 6.9 billion pounds. With average milk prices increasing 10 cents to $3.47 per hundredweight, the farm value of milk production rose $10 million to $239 million. Sales to dairies, at $111 million, were up slightly, while milk sales for butter production were down. Butter production in Canada during the last two years has been below domestic disappearance, resulting in the gradual elimination of surplus butter stocks. Cheese production continued its upward trend, stimulated by the consistent demand for cheddar, both at home and in the United Kingdom, our main export market. Despite the 10 per cent increase in production, prices remained relatively favourable.

The farm value of fruit produced in Ontario fell 11 per cent in 1965, declining from $32 million to $29 million. Production of practically all fruits with the exception of grapes was lower. Fruit for processing remained unchanged, with reduced sales of certain fruits offset by higher negotiated prices. In spite of heavy grape production, the need to export the surplus at very low prices led to an overall decline in its recorded farm value.

In contrast to the reduced production of fruit, production of all main vegetables was higher in 1965 than 1964. Somewhat larger sales and higher negotiated minimum prices for several vegetables increased their farm value, but this was countered by a lower farm value of carrots and onions. The lower value for carrots and onions reflected the damaging effect on prices of increased production. Total farm value of vegetable production, at $49 million, was practically unchanged from the previous year.

(ii) Outlook

Exceptionally hot and dry weather in mid-summer has had a harmful effect on spring grains this year, and yields have suffered as a result. These adverse conditions were particularly prominent in Southern and Western Ontario, although it was widespread throughout the province. Yet in spite of this conditions are generally favourable for other field crops. The outlook for tobacco is particularly favourable this year. The 128,000 acres planted are expected to yield 220 million pounds — an all-time record.

In livestock, it is expected that the high prices producers have been receiving will continue through to late 1966. This is particularly true for hogs, due to the continuing shortage in the United States. Fed cattle marketings are expected to increase again this year but in view of the situation in the United States, prices are likely to average slightly higher than in 1965.

The heavy demand for meats should keep the price of chicken broilers relatively strong. This will be reinforced by an anticipated reduction in production late in the summer. Turkey broiler production should increase again this year, but prices are not expected to decline below the level of last year.

So far this year sales of milk to dairies have been only marginally higher than in the comparable period last year. Yet it is expected that the sizeable price increases for both fluid and secondary milk that are materializing this year will raise the value of milk purchases by dairies from $111 million to $125 million. Sales of milk for manufacturing are up slightly this year, while butter production has not changed. Cheddar cheese output is up three per cent. Other processed milk products are slightly lower according to statistics for the first six months of 1966.

Production of fruit crops in the province promises to exceed the relatively low production levels of last year. Peaches, pears and sweet cherries should be considerably higher with apples increasing moderately as well. However raspberries and sour cherries will be down sharply. Grapes, strawberries, plums and prunes will be moderately lower than last year. The condition of vegetable crops appears to be slightly below average, the result of insufficient rainfall throughout Ontario. Peas and head-lettuce have been particularly hard hit.

ONTARIO'S NEW HOUSING PROGRAM

P. E. H. Brady
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It has been said that a nation can be judged by the way in which it looks after its people, both young and old. Invariably the aims are similar but the means and the extent of assistance differ from place to place. Today most developed western nations have "anti-poverty" programs of one kind or another. In Canada there are various measures both at the federal and provincial levels, each with the objectives of creating opportunities and stimulating employment. Housing legislation is one such measure affording people the opportunity of establishing in, and becoming part of the urban communities of Ontario.

In Ontario the Ontario Housing Corporation, created in 1964, has been responsible for undertaking housing projects with these objectives in mind.

A new technique of aiding public housing projects was contained in the 1964 amendments to the National Housing Act, providing federal government loans to provinces or their designates for the purpose of building or acquiring housing to assist lower income persons. The loans amount to 90 per cent of project costs amortized over a 50-year period and bear an interest rate consistent with the costs of long term borrowings by the federal government. In the case of Ontario, the 10 per cent equity is supplied by the province through its housing agency. Operating losses for family housing developments are distributed among the three levels of government with the federal government assuming 50 per cent, the provincial government 42½ per cent, and the municipal government 7½ per cent of the losses. The federal and provincial governments share equally the operating losses sustained in senior citizen projects, with the municipality contributing by way of a tax subsidy waiving all realty taxes in excess of $25 per year per unit. Municipalities receive full taxes for family housing projects.

Size of the Program

After eighteen months in operation the Ontario Housing Corporation has underway a larger housing program for low income families than that achieved by all of Canada during the period 1949 to 1964. The Corporation has built and acquired, and has under various stages of planning, some 13,000 units. This is 3,000 in excess of the Canadian total production during the 15-year period ended December, 1964. A program of this magnitude — particularly when considered in relation to the program in Canada prior to 1964 — reflects several things:

Determination by government to get on with the job of housing the poor and needy.

A bold new approach in terms of new techniques, together with a resolution to discard previously used methods not attuned to current housing market practices.

Determination to use the private building industry and real estate fraternity to do the job.

Determination to use every flexible tool and to time the market for the most advantageous techniques — sometimes building, sometimes buying, sometimes contracting.

Acceptance that urban renewal and housing are significant fields in any provincial work and opportunity program.

Determination to blend provincial and national housing legislation to achieve optimum results.

Determination to build and acquire to meet the needs of a community rather than to just meet regulatory requirements.

Acceptance that housing low income people is part and parcel of the larger private and public concern to house all economic groups within the community.

Willingness to experiment with new forms of housing and densities.

Basic appreciation that housing in itself is not the cure-all but simply an important part of the overall needs of man.

ONTARIO HOUSING CORPORATION AND ITS DEVELOPMENT TECHNIQUES

The Ontario Housing Corporation, set up on November 1st, 1964, is a crown corporation responsible to the Minister of Economics and Development and operates under the provisions of the Housing Development Act. More precisely, the reasons and purposes for the establishment of the Corporation can be summarized as follows:

(a) To reduce the multiplicity of agencies sharing responsibility for the planning, provision and administration of public housing in the province, and to achieve the advantages inherent in consolidating the control and co-ordination of various aspects of the Ontario public housing program.

(b) To increase substantially the portfolio of Ontario Public Rental Units and to shorten significantly the timing cycle requirement to complete the consecutive phases of housing development.

(c) To evolve and administer a system of sociological and technological research relative to housing needs and the construction techniques throughout the province.

(d) To undertake specifically designated real estate transactions on behalf of the government of the Province of Ontario.

(e) To provide to private individuals an effective stimulus and requisite resources for the renovation of older downtown residential areas.

(f) To motivate public housing tenants to aspire to ultimate homeownership.

(g) To de-emphasize the segregation of public housing families and encourage assimilation of tenants into the mainstream of the community wherever practicable.

(h) To counteract any stigma, rightly or wrongly associated with public housing operations, and to improve the general image thereof.

(i) To promote the Ontario public housing program with clarity, imagination, vigour and tangible performance so as to achieve acceptance from the public in general and response from the municipalities and needy citizens in particular.

The Corporation was determined at its inception to employ every available technique which would produce quickly and at reasonable prices the housing units requested by some 75 municipalities in Ontario. One important new technique was developed making use of the talents, energy and know-how of the private building industry. The traditional method of providing public housing by requesting tenders from builders based on given plans and specifications was supplemented by a new approach involving "builder proposals" and the purchase of existing properties.

Proposals from Merchant Builders, Developers and Owners

During 1965, builders, developers and owners were invited to make submissions to the Corporation for the provision of housing based on very specific building standards and bedroom count requirements. (These proposals could relate to units to be constructed, units under construction or completed real estate.) A basic requirement was that housing units had to meet the standards set out in the National Building Code or that of the municipality concerned, whichever was higher. This method proved to be very successful with respect to quality of design, layout, price and speed of delivery. There was some concern at the beginning that design and general layout would suffer in the proposals coming from private merchant builders. However this proved to be unfounded. This technique has provided some of the best designs and best layouts of developments owned by the Corporation.

In purchasing completed and occupied units the Corporation was faced with an additional consideration. After having made its purchase it had to set out a period of transition for occupants, and it was anxious to make this as easy as possible for them. One of the methods used was to honour existing leases or provide the tenant with a 12-month lease — whichever was the longer period — on the basis of rents in existence at the time the property was acquired by the Corporation. After this period rent was to be geared to income. This meant that some tenants would enjoy a lower rental rate under the rent-geared-to-income formula used by the Corporation. In other cases tenants were faced with higher rents under the new income-based system. The minimum period of 12 months gave tenants adequate time to make other arrangements if they so desired.

Based on experiences with properties acquired in early 1965 — showing that changes of approximately 60 per cent in tenant occupancy have taken place — this technique has proved quite successful. As a method of providing accommodation it compares favourably with the time required to get new housing developments completed and occupied.

There was, of course, some reaction from tenants in the private sector and from local ratepayers' groups. A great deal of discussion went on at the time and the great fear was raised that properties would be devaluated and that social problems would be created by problem families. However, the larger real estate portfolio enabled the Corporation — by judicious tenant selection — to admit into this area tenants whose major problem was one of economics. The success of this social experiment was confirmed one year later in a study carried out by the *Globe and Mail.*

Variations in Direct Construction Programs

In most larger urban centres there are significant problems attached to acquiring land in core areas suitable for residential purposes. First, the land is very expensive; secondly, it generally requires rezoning to permit optimum use. Where needed, the powers of expropriation given under the urban renewal program can be used to acquire and clear land. However, this is a long, drawn out method, and often requires some three to five years before land can be acquired, cleared and made ready for development.

The Corporation has met these problems by inviting proposals on land normally considered appropriate for urban renewal purposes. Under this arrangement the private developer does all the 'leg work' involved in completing applications for rezoning and preparing preliminary schemes, estimates, working drawings and specifications. All this time he is assuming the substantial risk that the proposal may not gain acceptance by the governments concerned. The Ontario Housing Corporation so far has received two such proposals, and the basic designs have been well received at the municipal level. Cost per unit has been at least $3,000 less than that normally achieved under the federal-provincial-municipal urban renewal program. In addition it is expected that the time factor will be reduced substantially under this technique as compared with urban renewal schemes carried out under public auspices.

Land Owned by the Corporation

In those cases where land was owned by the Corporation, other proposals were received based on the type of housing and bedroom count stipulated by the Corporation. Only a portion of the land was set aside for public housing purposes. The remaining portion was to be used by the private developer according to a plan approved by the Corporation. The price of the land owned by the Corporation was fixed and the request was made that the proponent supply the Ontario Housing Corporation with approximately 20 per cent of the units intermingled throughout the subdivision. The selection of the developer was made by an independent architectural and planning committee, which, in reviewing the submissions, paid special attention to design, layout, price and specifications. This experiment proved conclusively that not only government but also private developers are prepared to work on residential integration. This arrangement has also been very acceptable to municipal officials, because they have been assured that subdivisions will be constructed from beginning to end precisely as outlined. Indeed, this appears to be an excellent method of making good use of the combined talents and resources of both government and private enterprise.

Development of University Village

In another instance the Corporation in conjunction with the Central Mortgage and Housing Corporation has acquired some 100 acres of land adjacent to a university with the intention of providing both private and public housing. This project — not downtown oriented — is being directed largely to meeting the needs of the university population. The architect acting for the Corporation is preparing detailed plans for the required moderate rental housing, working closely with a liaison committee of municipality, university and C.M.H.C. officials. Proposals will be called for the development of the entire 100 acres for both private and public housing. The number of units for private residential development is greater than that proposed for housing units to be administered by the Ontario Housing Corporation. Undoubtedly both staff members and students will be attracted to those sectors of the development which are appropriate to their physical and social requirements and related to their capacity to purchase or to rent.

The proponent seeking to develop the property must have the financial stability and development experience necessary to undertake such a task. His proposal must outline the planning and actual designing proposed for the private properties and he must provide the assurance that the public housing will be constructed in accordance with plans prepared by the architect and approved by the Ontario Housing Corporation.

HOUSING CHARACTERISTICS

Unit Size

A review of the new housing acquired, constructed or under development by the Corporation during the 12 months ended March 31st, 1966, reveals a range of unit sizes from 513 to 1,649 square feet, with a mean average size per new unit of 1,152 square feet. The mean average size for all types of existing units purchased by the Corporation during this same period was 1,094 square feet.

Bedroom Count

Over 90 per cent of all the units acquired by the Ontario Housing Corporation during the same twelve months were in the 3, 4 or 5-bedroom category. The following schedule indicates the bedroom distribution both for new constructon and existing structures.

Bedroom Type	*New Construction*	*Existing Structures*
Per Cent of Total Bedrooms	Per Cent of Total Bedrooms	Per Cent of Total Bedrooms
1 - Bedroom	0.9	3.2
2 - Bedroom	5.9	6.0
3 - Bedroom	60.0	90.3
4 - Bedroom	22.9	0.5
5 - Bedroom	10.3	—
Total	100.0	100.0

Unit Distribution

The following schedule shows the distribution of units among detached houses, duplexes, semi-detached houses, row houses, maisonettes and apartment units constructed during the year ended March 31st, 1966.

Number of Units	*Type of Unit*	*Per Cent of Total*
138	Detached houses	7.4
16	Duplexes	0.9
223	Semi-detached houses	11.9
885	Row houses	47.4
352	Maisonettes	18.9
253	Apartment units	13.6
1,867	Total	100.0

These units are distributed according to bedroom-type as follows:

Bedroom Type	*No. of Units*	*Per Cent of Total Units*	*No. of Bedrooms*	*Per Cent of Total Bedrooms*
Bachelor	6	0.3	—	—
1-Bedroom	55	2.9	55	0.9
2-Bedroom	173	9.3	346	5.9
3-Bedroom	1,175	62.9	3,525	60.0
4-Bedroom	337	18.1	1,348	22.9
5-Bedroom	121	6.5	605	10.3
Total	1,867	100.0	5,879	100.0

Changes in Housing Costs

Based on statistics provided by the Central Mortgage and Housing Corporation for the first quarter of 1965 and 1966, the estimated average costs of new bungalows financed under the National Housing Act have risen sharply in one year. In both Ontario and Canada as a whole, construction costs have grown more rapidly than land costs, but in Toronto land costs have risen more rapidly. The table below indicates that average total costs have risen 22.6 per cent in Metropolitan Toronto, 12.0 per cent in Ontario and 8.4 per cent across all of Canada. However, the size of new bungalows as measured by floor area has grown as well, particularly in Toronto. Consequently, construction costs per square foot increased 13.4 per cent in Metropolitan Toronto, 7.9 per cent in Ontario and 6.9 per cent across Canada.

ESTIMATED COSTS OF NEW BUNGALOWS FINANCED UNDER NHA

	CANADA			*ONTARIO*			*METROPOLITAN TORONTO*		
	1st qtr. 1965	*1st qtr. 1966*	*Per cent Increase*	*1st qtr. 1965*	*1st qtr. 1966*	*Per cent Increase*	*1st qtr. 1965*	*1st qtr. 1966*	*Per cent Increase*
	$	$		$	$		$	$	
Land	2,797	2,929	4.7	3,800	4.100	7.9	5,200	6,600	26.9
Construction	12,833	14,036	9.4	12,900	14,600	13.2	12,500	15,100	20.8
Other	292	290	—	—	—	—	—	—	—
Total	15,922	17,255	8.4	16,700	18,700	12.0	17,700	21,700	22.6
Finished Floor Area (Sq. Ft.)	1,147	1,174	2.4	1,145	1,198	4.6	1,225	1,305	6.5
Construction Costs per Sq. Ft.	11.19	11.96	6.9	11.27	12.19	7.9	10.20	11.57	13.4

Source: Central Mortgage and Housing Corporation.

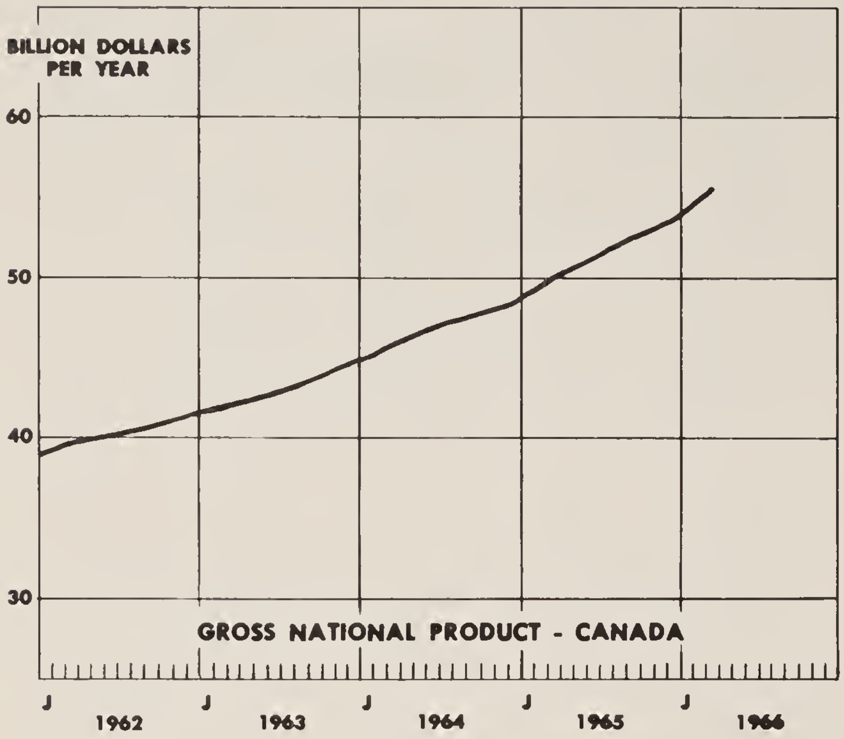
GENERAL REMARKS

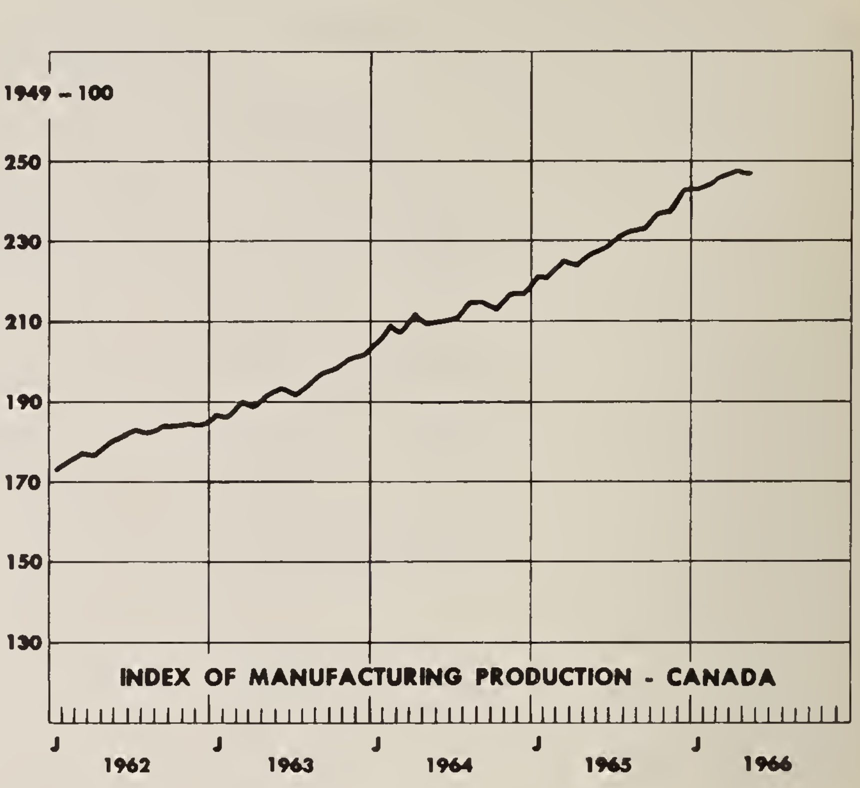
The different techniques used by the Ontario Housing Corporation have paid encouraging dividends in terms of quality of product and price. This is not to say that price alone has been the criterion: in many cases the Corporation has paid a higher price under "builder proposal" arrangements in order to acquire good housing stock. But it does mean that it has received good value for the expenditure made.

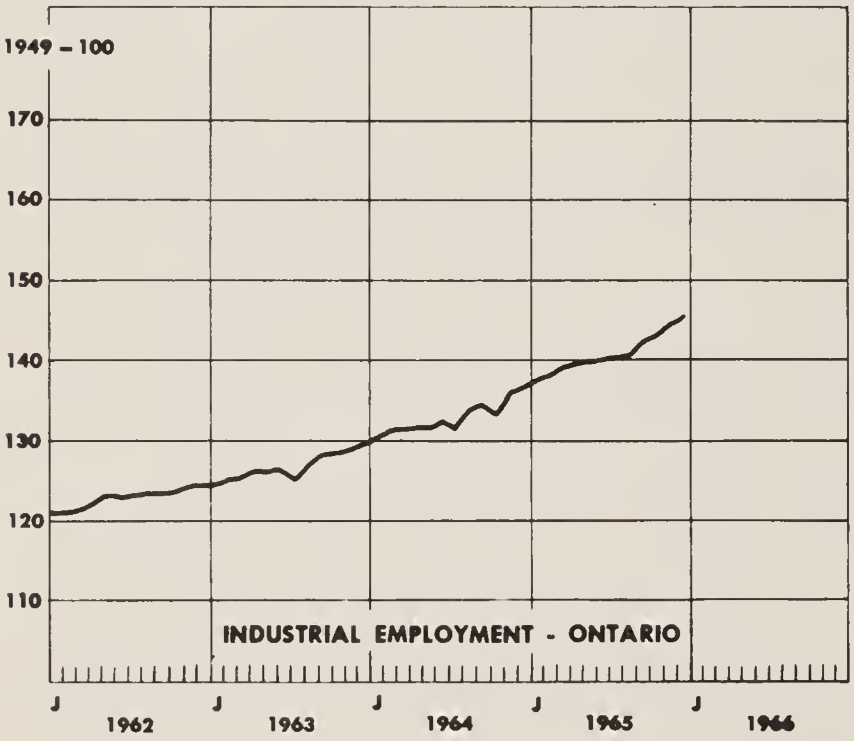
The basic advantage of "builder proposal" arrangements has been in having the developer and architect under one roof, with the developer making the basic decisions. It is evident that the old method — engaging an architect, preparing detailed plans and specifications and then going to tender — requires reassessment. Sophisticated builders are anxious to put a good product on the market, and they have a lot of know-how in a complicated industry. Public housing should take advantage of this.

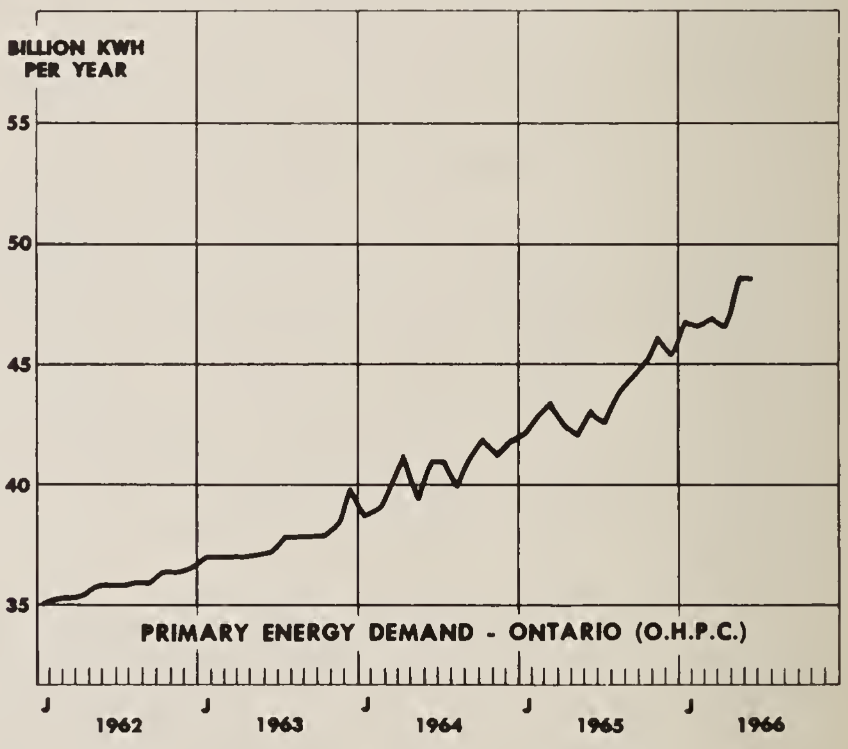
The experience of the past few years confirms the fact that the job of housing low income families and senior citizens cannot be carried out successfully without the full support of private building industry. As a result of the Corporation's use of new techniques, the time required to accommodate low income families and senior citizens in good, safe and sanitary housing has now been substantially reduced.

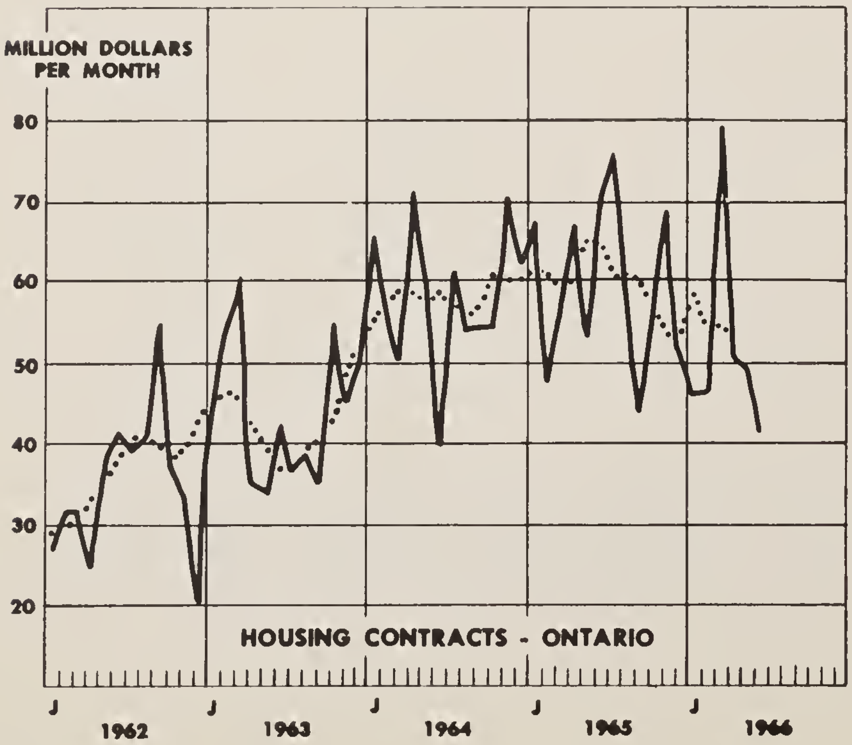
ECONOMIC INDICATORS–SEASONALLY ADJUSTED

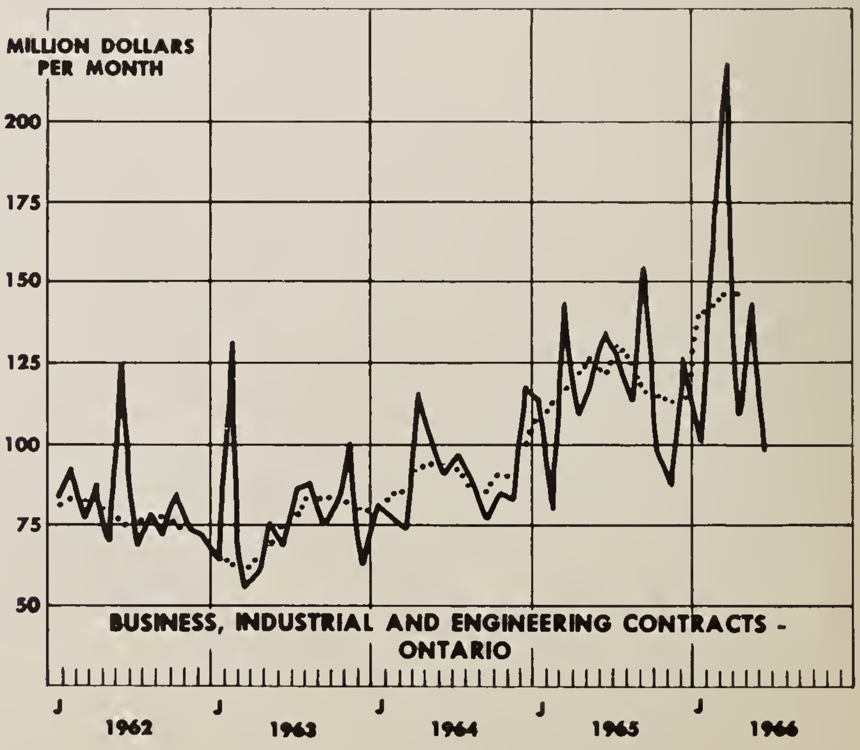








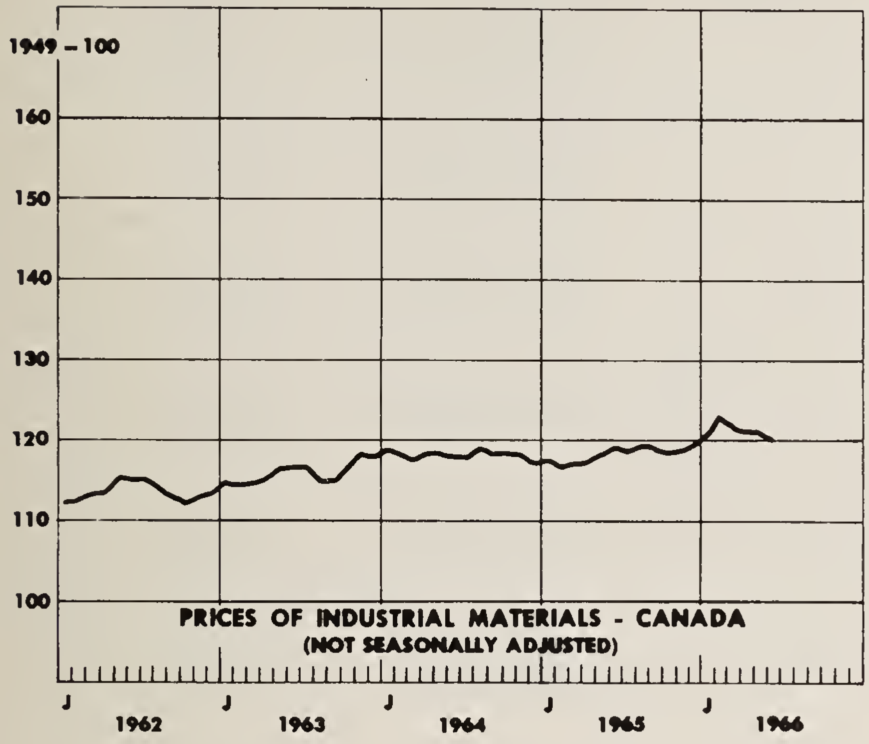


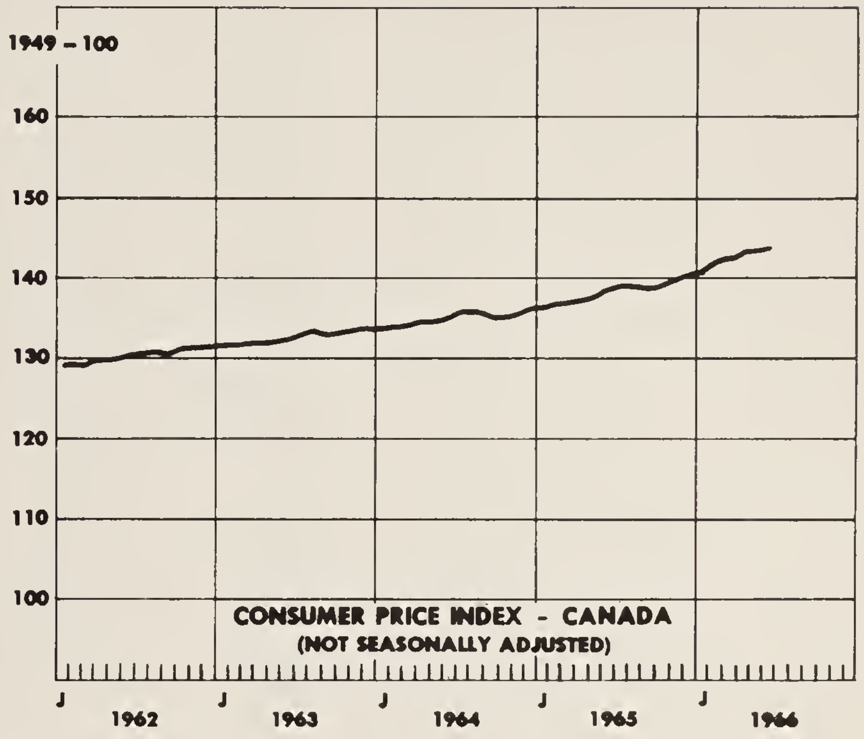


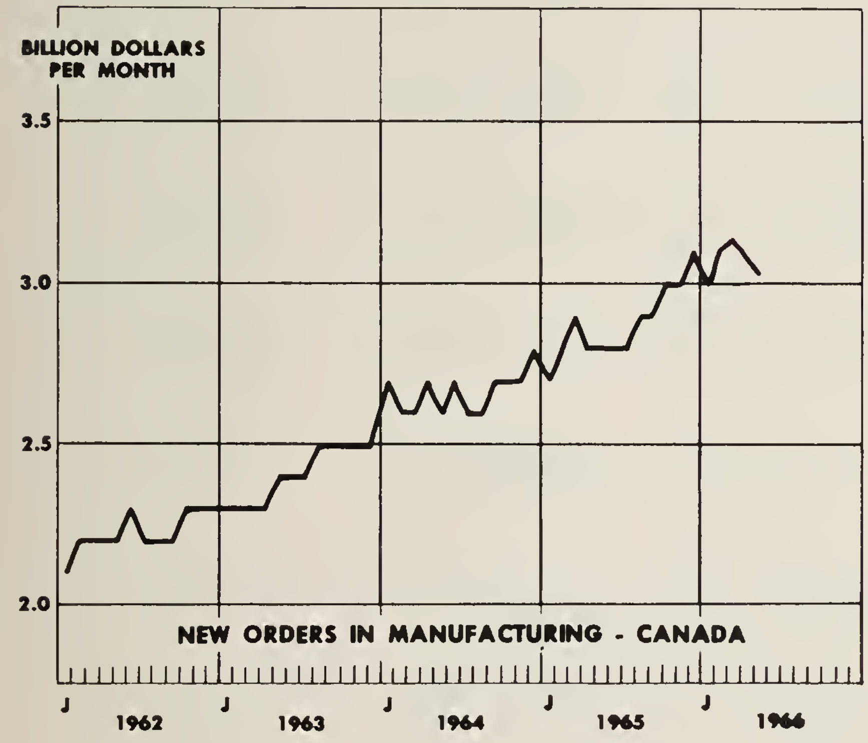
······· TREND CYCLE

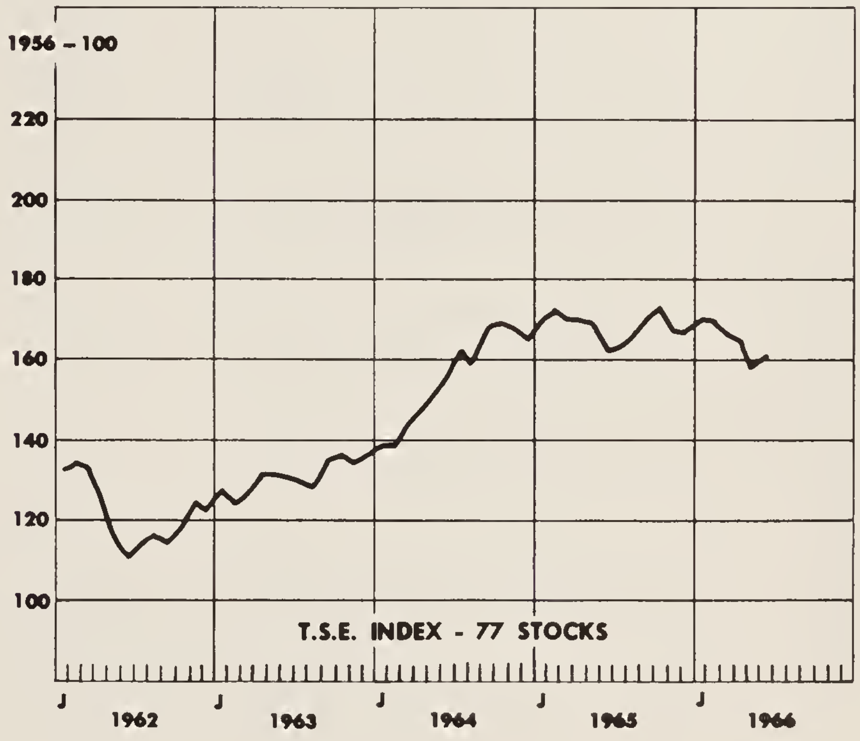
——— SEASONALLY ADJUSTED MONTHLY FIGURES

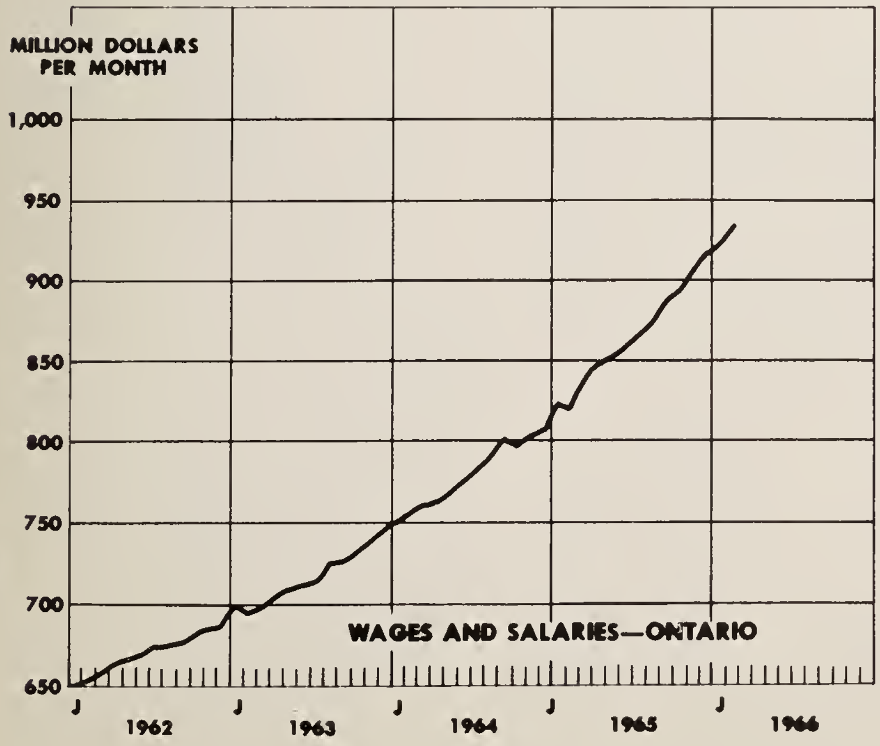
ECONOMIC INDICATORS–SEASONALLY ADJUSTED

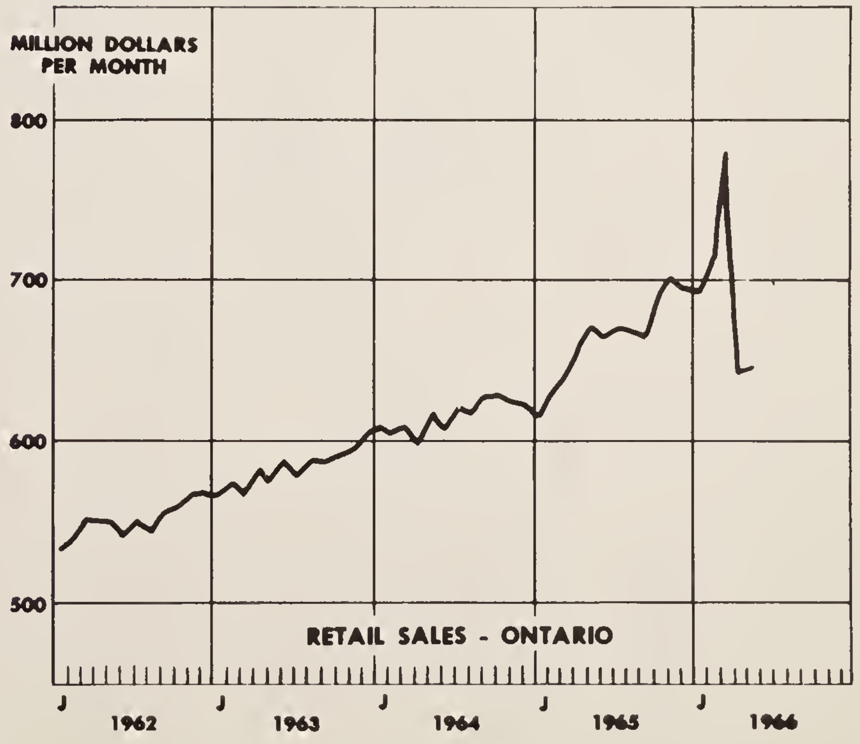












ONTARIO ECONOMIC INDICATORS - SEASONALLY ADJUSTED

(* Figures for Canada)

		1965								1966					
		May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	June
LEADING INDICATORS															
Average Weekly Hours Worked in Manufacturing	Number	40.9	41.2	40.8	40.9	40.7	41.1	41.3	42.0	40.9					
New Dwelling Unit Starts	Number	5,010	5,806	4,770	7,377	4,464	3,764	4,708	4,634	5,805	5,061	4,634	3,266	4,444	3,845
Business Failures	Number	87	65	63	83	79	70	71	69	72	76	91	66	76	
Business Failures - Liabilities	$ Million	5.3	4.6	4.0	20.7	9.5	2.6	3.4	3.2	4.9	7.3	5.1	9.1	5.3	
New Orders in Manufacturing*	$ Million	2,834	2,829	2,849	2,909	2,897	3,005	3,014	3,103	2,996	3,123	3,141	3,092	3,028	
Housing Contracts	$ Million	53.7	70.9	76.2	59.1	44.3	56.6	68.9	51.9	46.4	46.4	79.6	50.8	49.5	41.4
Business, Industrial and Engineering Contracts	$ Million	117.9	135.9	127.8	115.0	155.7	98.1	87.6	125.8	101.8	162.8	218.2	109.4	143.0	99.0
Money Supply*	$ Million	18,683	18,716	19,172	19,639	19,654	19,786	19,747	19,770	19,758	19,814	19,993	20,184	20,132	20,072
T.S.E. Index - 77 Stocks	1956=100	169.5	163.0	163.9	166.8	171.4	174.2	167.7	168.1	171.2	169.8	167.1	164.9	158.6	161.7
COINCIDENTAL AND LAGGING INDICATORS															
New Dwelling Unit Completions	Number	4,518	4,019	2,153	4,075	3,269	2,830	3,825	4,570	5,553	4,382	5,230	6,994	4,191	6,956
Average Hourly Earnings in Manufacturing	$	2.23	2.24	2.24	2.25	2.27	2.29	2.30	2.27	2.30					
Gross National Product*	$ Million	- - -	51,324	- - -	- - -	52,704	- - -	- - -	53,760	- - -	- - -	55,712			
Cheques Cashed in Clearing Centres	$ Million	4,211	4,097	4,184	4,634	4,287	4,313	4,363	4,526	4,687	4,476	4,518	4,596	4,450	
Retail Trade	$ Million	672	665	672	669	667	694	703	697	695	715	780	646	647	
Labour Force	000's	2,607	2,626	2,626	2,642	2,608	2,605	2,621	2,641	2,675	2,672	2,686	2,709	2,707	2,730
Employed	000's	2,536	2,548	2,556	2,574	2,541	2,556	2,562	2,582	2,612	2,612	2,629	2,653	2,638	2,651
Unemployed	000's	71	78	72	68	67	49	59	59	63	60	57	56	69	79
Unemployed as % of Labour Force	%	2.7	3.0	2.7	2.6	2.6	1.9	2.3	2.2	2.4	2.2	2.1	2.1	2.5	2.9
Wages and Salaries	$ Million	854	861	868	874	888	895	908	917	924	936				
Industrial Employment(i)	1961=100	115.7	115.8	117.8	115.8	117.4	118.4	119.0	120.3	120.7	121.1				
Total Industrial Production*	1949=100	250.3	251.6	254.9	258.2	260.2	261.6	264.0	268.6	268.9	271.5	273.8	274.5	275.6	
Total Manufacturing		227.3	228.1	231.3	232.8	233.7	237.1	237.6	242.5	243.3	244.6	246.8	247.7	247.1	
Non-Durables		222.2	221.0	225.2	226.3	227.1	230.2	229.1	234.7	235.5	236.8	240.4	240.8	241.2	
Durables		233.2	236.3	238.5	240.4	241.5	245.0	247.5	251.6	252.5	253.7	254.3	255.7	253.9	
Mining		350.3	355.4	360.7	373.9	383.7	362.2	377.8	385.0	372.7	387.1	390.4	393.5	398.7	
Electric Power and Gas Utilities		434.9	437.6	438.8	451.5	456.0	471.2	478.0	471.6	488.9	490.7	492.3	485.5		
Primary Energy Demand (Annual Rate)	BKWH	42.14	43.06	42.59	43.67	44.51	44.98	46.11	45.50	46.71	46.60	46.88	46.62	48.61	48.57
ECONOMIC INDICATORS NOT SEASONALLY ADJUSTED*															
Domestic Exports	$ Million	745.7	717.6	770.4	685.7	701.0	772.0	897.1	795.5	722.9	674.5	768.7	753.2		
Imports for Consumption	$ Million	736.9	794.7	732.3	660.5	724.7	763.6	895.3	786.9	703.9	660.9	825.1	765.3	794.7	
Foreign Exchange Reserves	US $ Million	2,499	2,480	2,492	2,598	2,614	2,644	2,681	2,665	2,562	2,548	2,510	2,469	2,412	2,342
Prices, Industrial Materials	1935-39=100	258.5	260.4	259.5	260.9	260.4	259.3	259.4	261.3	265.4	267.9	264.6	264.7	264.2	263.0

(i) Revised series; base changed from 1949=100 to 1961=100.

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ONTARIO ECONOMIC REVIEW

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DEPARTMENT OF ECONOMICS AND DEVELOPMENT

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THE ONTARIO ECONOMY

There were further indications in the economy that the very rapid growth of the first quarter of 1966 was giving way to more moderate growth in succeeding months. Industrial production, reflected in the Index of Industrial Production for Canada, declined from 273.8 in May to 273.1 in June (1949=100). This was due in part to lower consumer demand for durables, particularly for automobiles, and in part to lower mining production (itself reflecting output-curtailing strikes). Contract awards for residential construction in Ontario remained well below last year's level, virtually assuring a lower level of housing starts for 1966 than for the previous year.

Retail trade, however, did pick up somewhat in June, following two months of drastically lower sales resulting from the April 1st increase in the Ontario retail sales tax. Valued at $701 million in June, these sales returned to the approximate level they had reached at the beginning of the year.

The rate of unemployment was maintained at a satisfactory level during the summer, although it did increase somewhat from the very low level of March and April. By August this rate had risen to 3.3 per cent, seasonally adjusted. Nevertheless, on a cumulative basis unemployment for the eight month period of 1966 was 2.6 per cent of the labour force, comparing favourably with the 2.7 per cent rate for the corresponding period of 1965.

One of the most interesting developments recently has been the rise in prices, particularly food prices. According to the Consumer Price Index for Canada, the food component in July was 5.0 per cent higher than one year earlier. Combined with significant increases in health and personal care, urban transportation and home ownership costs, this has produced an increase of 3.4 per cent in one year in the overall Index. Rising food prices — in most respects a short-run phenomenon related to shortages of meats — received particular attention from housewives. All across Canada and the United States groups were formed protesting high food prices in the large chain stores. However, aside from increases in these selected categories, most other components of the Consumer Price Index rose moderately.

Production

Steel ingot production in Canada, unadjusted for seasonal variations, was 827.7 thousand tons in July, a decline of 2.8 per cent from the previous month. This was also 0.9 per cent less than the July 1965 level of 835.0 thousand tons. Yet in a comparison of the January to July periods for this year and last there has been an increase in production of 4.4 per cent.

Canada's Index of Industrial Production (based on 1949=100) fell slightly from May to June, with the seasonally adjusted Index declining from 273.8 in May to 273.1 in June. Over the past 12 months, however, the Index has risen 8.5 per cent.

The month-to-month decline reflects the recent easing that has occurred following the rapid growth of the preceding period. From May to June the mining component fell 1.4 per cent, while manufacturing declined 0.2 per cent — with durables and non-durables contributing equally to the decline. Electric power and gas utilities rose 0.7 per cent.

The decline in the mining index came about as a result of lower production in non-metals and fuels, which declined 8.3 per cent and 1.7 per cent respectively. In metals, gold dropped 13.2 per cent but was countered by a 14.2 per cent increase in nickel production; consequently the metals component rose fractionally.

Non-durable manufactures were influenced by significant declines in printing and publishing, in tobacco products and in rubber products, while increases in foods and beverages and in textiles helped to moderate these declines somewhat. In durables, the declines in most categories were nearly offset by increases in transportation equipment and nonferrous metal products.

In spite of this mild one-month drop in industrial production, the June level of production was up significantly from 12 months earlier. Between June 1965 and June 1966 the Index rose 8.5 per cent, the result of a 10.0 per cent increase in mining, a 7.3 per cent increase in manufacturing (8.3 per cent and 6.3 per cent for non-durables and durables respectively) and a 16.8 per cent gain in electric power and gas utilities.

Manufacturing shipments in Ontario reached $1,705.3 million in June, a year-to-year gain of 7.1 per cent. Increased shipments in foods and beverages, rubber industries, primary metal industries and chemicals and chemical products industries were the principal contributors to this overall gain. In the six-month period this year shipments have reached $9,675.6 million, 10.7 per cent more than the six-month period for 1965.

Construction

The value of Ontario's construction contract awards, not seasonally adjusted, was $198.8 million in August, according to the *Southam Building Guide*, up $33.5 million – over 20 per cent – from one year earlier. This improvement came after two months during which awards were well below the levels reached in 1965. All broad groups of construction activity except residential construction contributed to this increase. Due largely to lack of readily available funds, residential construction awards were down to $55 million, $13 million less than in August 1965. Reduced apartment building contracts accounted for the decline; they dropped from $31.2 million to $17.0 million in 12 months. Residences were actually up almost $13 million to a level of $38.0 million.

All other types of construction were higher than last year, particularly institutional construction. A large increase in construction awards for schools and colleges as well as medical and hospital facilities brought that group up to $46.4 million – more than 60 per cent above last August. Awards for business construction, at $18.7 million, were up an equally impressive 50.6 per cent.

"Big Jobs" in Ontario – construction contract awards of $1.0 million or more – were valued at $72.8 million in August. Some are listed below:

LARGE CONSTRUCTION AWARDS PLACED RECENTLY IN ONTARIO

Location	*$ Million*	*Description*
Ajax	2.0	School addition
Brampton	3.3	School
Bruce Lake	11.1	Initial work on railway
Hamilton	2.4	YWCA building
Iroquois	1.0	Warehouse
Kingston	1.2	Apartments
Kitchener	1.3	Relocation of utilities
London	1.0	Apartments
Markham Twp.	2.1	Housing
Napanee	2.1	School addition
Nepean Twp.	2.5	School
Ottawa	1.6	Office building
Owen Sound	1.4	Plant
St. Catharines	2.0	School
Sarnia	2.5	Telephone exchange
Sudbury	1.2	Housing
Thorold	1.2	School addition
Timiskaming	1.1	Repairs to dam
Toronto	6.9	Rapid transit structures
Toronto (metro)	5.2	Schools
Toronto (metro)	5.0	Apartments
Waterloo	1.6	University building
Windsor	1.0	School addition
Yarmouth Twp.	1.1	Water intake

Source: Southam Building Guide.

For the first eight months of the year construction awards have been $1,445.0 million – down $6.0 million or 0.4 per cent from the corresponding period in 1965. While residential construction has played an important role here, being consistently below last year's level, in recent months uneven performances have been evident in other areas of construction. To a large extent this has reflected the recent moderation in the overall growth in the economy.

Actual housing starts in Ontario centres of 5,000 population and over were down 58 per cent to 3,809 dwelling units in August. For the eight months of this year the total has been 29,416 units, a 26 per cent decline from last year.

In Toronto, where the housing problem has been acute, starts were 62 per cent lower than 12 months ago, down from 5,219 to 1,981. In Hamilton and Ottawa similar sharp declines were evident.

Completions in August numbered 5,933 units, bringing the January to August total to 41,029—a significant increase from the 31,693 units recorded in 1965. Units under construction at the end of August were 30,483 this year, down from 52,002 units at the same time last year.

Employment

Ontario's labour force, seasonally adjusted, passed the 2.7 million mark in the early part of 1966, and by August was 2,768 thousand. Throughout most of this period the rate of unemployment remained quite low – even better than the very impressive rate of last year. However, by July the rate had edged past three per cent; and by August it was 3.3 per cent of the labour force. But in spite of the fact that this was higher than the March and April rate of 2.1 per cent, it nevertheless reflected a quite favourable employment picture. In actual numbers, employment reached 2,679 thousand in August while the unemployed numbered 89 thousand.

At the national level, unemployment was 4.0 per cent of the labour force, seasonally adjusted. Canada's labour force was recorded at 7,482 thousand, the number employed 7,182 thousand.

In a comparison of cumulative rates of unemployment for the first eight months of this year, Ontario has had an overall rate of 2.6 per cent compared with Canada's 3.6 per cent of the labour force. The corresponding figures for 1965 were 2.7 per cent and 4.1 per cent for Ontario and Canada respectively.

Prices

The Consumer Price Index for Canada moved up 0.3 per cent from June to July, reaching a level of 144.3 (based on 1949 = 100). A 1.2 per cent increase in the food component was the major factor in this increase. The only other component to increase was housing, which rose a slight 0.3 per cent. Clothing and health and personal care both declined slightly while the other components remained the same.

The price increases in food were largely related to dairy products, all fat products except lard, and most beef and pork cuts. Increases were also recorded in tea, coffee, grapefruit, oranges, apples, frozen orange juice, turnips, tomatoes, celery and lettuce. Declines were evident for sugar, pickles, jelly powder, evaporated milk, eggs, chicken, turkey, lard, hamburgs, smoked ham, sausages, bananas, grapes, strawberries, most processed fruits, potatoes, carrots, cabbage and tomato juice.

The increase which took place in housing was the net result of advances in rents, home-ownership and most components of household operation. The price decreases were mainly confined to selected household appliances.

Looking at the changes over the past year, it is evident that food has been one of the major forces accounting for the somewhat larger increase in the overall Index. From July 1965 to July 1966 the Consumer Price Index rose 3.4 per cent. The food component rose 5.0 per cent, clothing 3.4 per cent and health and personal care 3.2 per cent. All other components were between two and three per cent higher than in July 1965.

Retail Sales

Ontario's retail sales in June recovered much of the ground lost in the decline of the two previous months. The seasonally adjusted value rose to $701 million, 8.3 per cent higher than the May's $647 million.

On an unadjusted basis, retail trade climbed to $729.7 million, and was 5.9 per cent higher than during June, 1965. This year-to-year increase for the month was close to the 6.1 per cent average for the whole of Canada. The major factor in Ontario's lower-than-average growth was the low level of motor vehicle sales; they were down 11.4 per cent from one year earlier. All other categories were up, most of them quite significantly. For example, variety store sales were 21.4 per cent higher, while women's clothing and shoes were up over 17 per cent and 13 per cent respectively. Lumber and building material dealers were the only ones whose year-to-year increase could be considered small – only 1.1 per cent. This points out the very significant role that motor vehicle sales play in the overall total. In Ontario it accounted for 16 cents out of every dollar of retail sales.

While the movement of sales in June is of interest, it is the total for the first six months of 1966 that gives the time picture of overall growth. During that period sales were 6.9 per cent higher than in the corresponding period last year. Once again, motor vehicle sales were the only ones that had declined, but it was down only 0.2 per cent overall. Variety stores, women's clothing stores and appliance and hardware stores were all up at least 10 per cent. Lumber and building material dealers, up only slightly for the months of June, were 13.0 per cent higher based on the comparison of six-month totals.

ECONOMIC EDUCATION

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The Department of Economics and Development has recently published a booklet entitled *The Economy of Ontario.*(1) Its publication is indicative of the Department's interest in simplified instruction in economics outside the universities, and in the dissemination of economic information generally. It also offers an occasion for some discussion of economic education in Ontario.

This subject can be conveniently divided into four parts, namely: the need for economic education; *The Economy of Ontario;* the uses of the booklet; and, a technique for simplified instruction.

The Need For Economic Education

The need for instruction in economics exists for two main reasons. First, the circular nature of the economic process means that there is continual interdependence between entrepreneurs, producers, consumers and government. If this interdependence and its implications were more widely understood, the individual would have a better understanding of his relation to the whole process, and this would provide him with a better basis on which to make his personal economic decisions. It would also provide him, as a voter and a taxpayer, with a better basis on which to form an opinion on economic policy. In the long run it might also increase the likelihood of obtaining cooperation between the sectors and so ease the difficulties of maintaining simultaneous economic growth and stability. Second, in any particular economy, a widespread knowledge of its physical resources is a necessary basis for an awareness of opportunities for economic growth. It is the use made of resources and opportunities and the efforts made to overcome shortages which make economic growth possible. Such use and effort must, of course, be based on a knowledge of what exists.

Simplified instruction in economics(2) is necessary because it is impractical for persons who do not intend to become professional economists to undertake a long and rigorous course of studies of the kind traditionally offered by universities. Nor is it necessary. The layman does not need to conduct rigorous economic analysis. What is important for him is that he be able to make intelligent decisions for his own economic well-being. To do this he needs to understand his relation to the whole economic process. For this purpose simplified instruction in economics should be sufficient.

Instruction, however, is necessary. Economics is more than a collection of facts. As John Maynard Keynes once expressed it:

> *"The theory of economics does not furnish a body of settled conclusions immediately applicable to policy. It is a method rather than a doctrine, an apparatus of the mind, a technique of thinking, which helps its possessor to draw correct conclusions."*(3)

It is unreasonable to expect this to be apparent without instruction. Moreover, the interested layman, if he had the time, could read a number of economic texts without forming a clear, basic understanding of what the economic process is and how it functions. Indeed, since economic theory is traditionally taught in consecutive segments, many university students of economics have virtually completed a course of undergraduate studies before being able to formulate such a concept.

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(1) Prepared in the Office of the Chief Economist, Ontario Department of Economics and Development (Queen's Printer, Toronto, 1966). Single copies will be available to the public free of charge in December. They may be obtained by writing to the Editor, *Ontario Economic Review,* Ontario Department of Economics and Development, 950 Yonge Street, Toronto 5, Ontario.

(2) The need for simplified instruction in economics is a question relatively new to Canada. It has, however, been arousing widespread attention in the United States for some time. An interesting indication of this is the fact that *Challenge: The Magazine of Economic Affairs,* (Institute of Economic Affairs, New York University) devoted its issue of March 1964 to the problem. The issue has an impressive list of contributors, each of whom discusses a different aspect of the problem.

(3) Introduction to the Cambridge Economic Handbook Series (James Nesbet & Co. Ltd., Cambridge, at the University Press).

In reading privately, the interested layman would share another problem with the university student of economics — technical language. It is, of course, necessary for members of the same profession to be able to communicate precisely, and, at its best, that which is jargon to the layman is to the economist the precisely defined language which makes such communication possible. But the use of technical language has made economic texts, and the texts of other disciplines, virtually unintelligible to the layman, for whose use they were not intended.

He must, therefore, be offered instruction which keeps the use of economic terms to a minimum, and which begins with a primary concept of what the economic process is and how it functions and then builds from this initial understanding to a point where he can intelligently comprehend the efforts made to maintain simultaneous economic growth and stability.

The need for simplified instruction in economics has already been recognized by the Department of Education. A course in economics is now included in the curriculum offered to Grade XII four-year course high school students. Economics is not, however, included in the curriculum offered to five-year course high school students. Many five-year students will, in the course of their working life, frequently make decisions which will affect the economic process. Most will be producers and taxpayers. All will be consumers. The inclusion of economics in the curriculum offered to five-year course high school students is, therefore, a question worth serious consideration.

Equally important is the fact that most of the present entrepreneurs, producers, consumers, investors, taxpayers and voters are adults. Since there is little point in expecting universal interest in a program of economic education for adults, such a program should have the general aim of reaching people interested in social and economic problems. Within this wide swath, certain groups can be usefully distinguished for the purpose of providing a difference in emphasis in the information offered. For instance, the middle and upper echelons of business management could be offered information about the principles of monetary and fiscal theory and the role of government in seeking to provide the climate for stable economic growth. They could then be invited to discuss how cooperation between business and government might be fruitfully extended. Trade union leaders could be offered information about the importance of increasing productivity and the desirable relationship between productivity and wage rates. Consumers could be offered information about their potential influence on the allocation of resources. Producers could be offered information concerning the importance of their role as suppliers of a factor of production. And investors could be offered information concerning the difference betwen speculation and investment.

A number of potential avenues exist for the dissemination of this kind of economic information. Business management in metropolitan Toronto would probably be best approached through the Chamber of Commerce and the Board of Trade. In the remainder of the province, the auspices of the Regional Development Councils might be utilized. Trade union leaders might be best approached through the Canadian Labour Congress.(4) As members of the socially aware public, consumers, producers and investors could be reached by educational television programs and by including elementary economics among the evening courses offered by a variety of institutions.

The advantages of simplified instruction for the layman in many disciplines might justifiably be enumerated. It is therefore useful to remind ourselves that, while providing his material needs is not the most important thing a man can do, unless he does it, he is not free to do much else.

The Economy of Ontario

The Department of Economics and Development published *The Economy of Ontario* to provide reference material relating directly to Ontario. As explained in the preface: "The general approach of the book is descriptive rather than theoretical. That is, it seeks to give the reader a knowledge and appreciation of the forces determining the pattern and pace of economic activity in Ontario without introducing him to the body of economic laws or theories commonly used to rationalize these forces."(5) But to encourage this appreciation, the structure of the booklet is implicitly theoretical.

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(4) In 1963 the Labour College of the Universities of Montreal and McGill was organized on behalf of the Canadian Labour Congress and the Quebec Federation of Labour. This College offers an eight-week summer course to 85 students, in two groups, one English-speaking and the other French-speaking. The course includes political science, history, economics, sociology and trade union history and principles.

(5) *The Economy of Ontario, op. cit.*, preface.

One of the cornerstones of economic theory, for instance, is the relation between supply and demand. The booklet describes the forces which determine the effective and potential demand for Ontario's production, i.e., population, income and location; and then explains that it is these forces which create Ontario's markets and so make it possible to utilize the province's supply of resources. It then describes in some detail these resources and the combination in which they exist in Ontario. While doing so, the booklet draws attention to the advantages to be derived from the province's combination of natural resources. It also describes Ontario's human resources and sources of capital. In each of these cases, it makes clear that the province suffers shortages relative to its supply of natural resources and to the potential demand for its output. That natural resources, labour and capital are the factors of production, and that these three factors must be efficiently combined for optimum production is inherent in the text.

The booklet then turns its attention to the sectors of production. The same approach is used. The parts of the primary, secondary and tertiary sectors are described and their relationship is explained. It is made clear, for instance, that adequate food supplies to support dense urban populations are a prerequisite for industrial development; and that as industry develops, the demand for services increases. The reader is introduced to the shift in factors from the primary to the secondary and, more recently, from the secondary to the tertiary sectors. He is also told how such adjustments are effected and that the underlying explanation for Ontario's economic growth is the province's flexibility in exploiting its resources. The allocation of resources and the far-reaching consequences of this important principle are implied throughout this discussion.

The last section of the booklet discusses Ontario's potential for further growth. Using examples, it explains that while this potential is good, growth cannot be assumed. What is being implied here is the dynamic nature of the economic process. Hopefully it will arouse in the reader some understanding of the importance of his conscious participation in this change.

The booklet has a shortcoming. The role of government is barely mentioned. Given that the formation of social capital and the provision of services beyond the competence of the private sector are important to the economic process, and that the citizen becomes a taxpayer in making the allocation of his resources necessary for this to be done, an understanding of this role is important.

The figures quoted in *The Economy of Ontario* must eventually become outdated. But the orders of magnitude are unlikely to change significantly in the near future; and if the present demand for the booklet is maintained,(6) there may be an opportunity for updating. This difficulty, therefore, should not prevent the booklet from fulfilling its purposes.

Uses of the Booklet

It is expected that *The Economy of Ontario* will be widely used in the high schools by the teachers of economics as reference material relating directly to Ontario. The implicitly theoretical structure of the booklet will enable teachers to demonstrate a concrete application of the principles of economics. At the same time, the booklet offers information about the resources and opportunities available in the province. It is, therefore, complementary to a simple text explaining the elements of economic theory; and by using both, teachers can offer a course which fulfills the two main purposes of teaching economics outside the universities.

It is also hoped that the booklet will be useful to high school teachers of geography. Geography teachers cannot, of course, be expected to make explicit the principles of economic thought which underlie the structure of the booklet; but it will be of value if geography students learn some facts about the Ontario economy and gain at least an implicit understanding of their relationship. This is of particular importance at the moment, when the curriculum for the five-year high school course does not include economics.

The booklet will also serve to answer some of the more serious enquiries which the Department of Economics and Development receives about the structure and functions of the Ontario economy. The fact that many such enquiries are received is an indication that a latent demand for adult economic education exists in Ontario.

If a program to meet this demand were supplied, *The Economy of Ontario* could complement simplified instruction in economic theory in the same way as it is expected the booklet will in the high schools.

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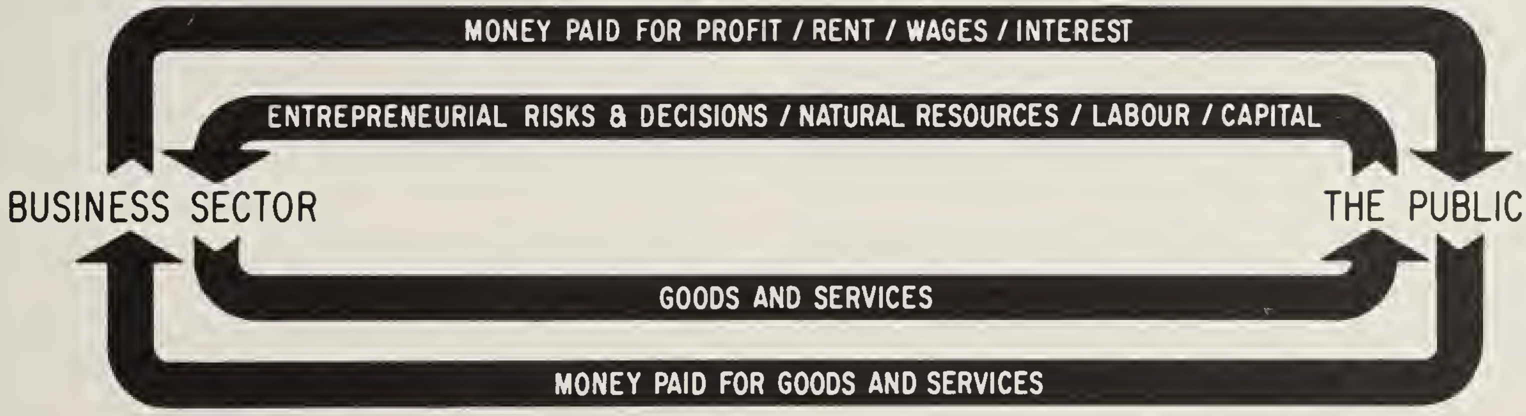
(6) Heavy demand for the booklet has already depleted the original printing of 5,000 copies, and a second printing of 11,000 is now under way. Of the original 5,000 copies printed the Department of Education has distributed 2,500 to educational institutions. The Department of Economics and Development has distributed the remainder in the government and to the news media, libraries and interested individuals.

A Technique for Simplified Instruction

The task of providing simplified instruction in economics is a difficult one. There is a risk of oversimplifying to the point where what is said is no longer valid. Obviously such a risk cannot be taken with the training of future economists. But the reason for providing generalized instruction is different. Here the task is to acquaint the layman with the nature of the economic process.

What is needed for this purpose is a concept of the economic process in its simplest form, so presented that the complexity of this concept can then be gradually built up. A number of ways of meeting this need might present themselves to economists. One is to employ the familiar national income/expenditure flow system, which delineates the components of the economy and shows the relation between them. Using this approach has two specific advantages. The diagram depicting this flow can be stripped to reveal the basic circular flow in the economic process. (See diagram.) It can then be built up step by step until all the income flows have been reincorporated in the diagram. When this has been completed, the complex concept of the economic process has been established. At the same time, the diagram acts as a pedagogical device to unify the course, because it can be displayed visually while the workings of the various sectors are discussed. In this way, the relation of each sector to the whole process is always apparent.

THE BASIC CIRCULAR FLOW OF THE ECONOMIC PROCESS


MONEY PAID FOR PROFIT / RENT / WAGES / INTEREST
ENTREPRENEURIAL RISKS & DECISIONS / NATURAL RESOURCES / LABOUR / CAPITAL
BUSINESS SECTOR
THE PUBLIC
GOODS AND SERVICES
MONEY PAID FOR GOODS AND SERVICES

The first lesson or lessons can be devoted to building up this basic circular flow. As soon as it is established and its implications made clear, the interdependence of all members of society for their economic well-being is apparent. The need for further instruction is thus immediately explicit to the student. At the same time, further instruction can be built up concretely from the initial presentation of this basic circular flow.

The topics of supply and demand and the allocation of resources can be validly discussed as the inner workings of the business sector, while the understanding of the relation of the business sector to the economic process as a whole is kept in view. It can be kept physically in view by prominently displaying a diagram of the basic circle of flow, while further instruction is in progress.

The fact that the principles of supply and demand and the allocation of resources are also at work within the government sector must be included in the final stage of the discussion of their workings in the business sector. Otherwise it will not be made explicit to the student that the workings of these principles is not confined to the business sector. A discussion of the workings of the government sector could therefore logically follow and, in this case, the diagram representing the basic circle of flow would receive its first additions in the form of sub-circles representing flows through municipal, provincial and federal government channels.

Or, discussion of the workings of the government sector could be set aside, while the principles behind the creation and control of the money supply are discussed. This also is logical because price as the nexus of allocation would have been the culminating point of the discussion of the workings of the business sector. It is reasonable, therefore, to develop this point by making explicit that the flow of money is a continual series of exchanges through which allocation is effected; and to proceed from this to a discussion of money itself. Discussing the principles behind the creation and control of the money supply at this point offers the further advantage of making full use of the circular flow diagram before it is complicated in any way.

Simple additions to the diagram can then be used to demonstrate the effects of exports and imports and also of saving and investment.

Then a step-by-step transformation of the original diagram can be made, until it represents the national income/expenditure flow system. In effecting this transformation, it would be more practical to represent only the flows of money. The student should already have some grasp of the relation between goods and money; and a diagram representing both the domestic flows of money in their totality and the accompanying inverse flows of goods and services would be cluttered. However, once the diagram representing the national income/expenditure flow system has been established, the corresponding flows of goods and services should be made explicit. At this point an explanation should also be given of the purposes served by investment by government, building up a stock of social capital, and providing a flow of services beyond the competence of the business sector to provide.

This leads logically to a discussion of what is known about cyclical control. What automatic stabilizers are and how they function should be clearly explained. Students should be told frankly of the difficulties of calculating the correct amount of induced change either by monetary or fiscal action or some combination of these actions. They should also be told of the importance of the cooperation of every member of society in the effort to maintain simultaneous economic growth and stability. Since the fact that the economic process rests on interdependence will have been explicit since the outset of the course, the gradual sophistication of the concept of what the economic process is and how it functions should lend itself to a deepening of individual awareness of the difficulties of the problem. This, in turn, should arouse the student's interest in learning how to appraise economic policy. It is at this point that special emphasis can be laid on the roles of business management, producers, consumers and investors.

Since international trade is of importance to our economy, it would be desirable to extend simplified instruction into this field. The flow of international trade can be represented diagrammatically as passing through many domestic circles of flow and this enlarged diagram used to demonstrate the principle of comparative advantage. Since the flow of international trade does pass through the domestic circles of flow, the relation between international trade, the balance of payments, the foreign exchange rate and the question of tariffs can also be conveniently shown. At this point, too, foreign investment, previously touched on when the effects of savings and investment were shown by a simple addition to the original diagram, can be placed more fully in perspective.

It is not, of course, suggested that these topics which economists know to be so complex should be presented in a complicated way. That is not necessary. All that is necessary is to acquaint the layman with the pattern. If this acquaintance is based on a firm understanding of the basic concept, and if the relation of each addition to it is clearly represented, he should carry away with him a clear notion of the pattern of the total complex concept. The pedagogical objective is not to produce ersatz economists. It is to explain to the layman his relation with the economic process. To provide instruction to this point, it is only necessary for the economist to be himself very clear about how the structure of the economic process is designed.

Designing a course of simplified instruction in economics in this way has several advantages. First, it demonstrates immediately the need for instruction in economics and keeps always before the student the importance of the way in which he governs his own economic activity. Second, it lends itself to presentation at varying levels of difficulty. It is, therefore, suitable for either high school students or adults. Presumably adults would grasp the basic concept more quickly and would be interested in a more detailed presentation later on in the course. They would therefore be expected to absorb more information in the same time than could high school students. Third, emphasis on the importance of various contributions to the economic process can readily be incorporated, while at the same time showing the relation of any particular contribution to the whole process. Fourth, a student who does not pursue his study very far will still take away with him at least an elementary grasp of the process as a whole and his place within it. Fifth, such a student will not suffer disenchantment with economic studies due to inability to appreciate the importance of a segment studied before its relation to the whole has been perceived. Sixth, if at any time such a student resumes the study of economics, he will have a basis on which to build. Seventh, because this method progressively emphasizes the importance of the individual to the economic process and the importance of the economic process to the individual, many students may be encouraged, after a course of simplified instruction, to undertake a more rigorous study of the discipline. And eighth, a course designed in this way could be readily adapted to a series of television programs, which would be a most convenient way of reaching both high school students and adults.

In presenting such a simplified course, the instructor should at every stage accompany the exposition of the principles at work by a concrete explanation of how these principles are affecting the economy of Ontario. As has been mentioned, a good deal of this information is now available in *The Economy of Ontario.*

The Department of Economics and Development is now experimenting with the presentation of economic thought in simplified form along the lines suggested in this article. At the Canadian National Exhibition, a model representing the basic circle of flow was displayed. The movement of flow was simulated by lighting and this simulation was accompanied by a tape-recorded explanation of what the diagram represented. Due to technical difficulties, it was only possible to directly represent the flow of money. The accompanying inverse flow of goods and services could therefore only be indicated. Even so, it was found that the public grasped the primary concept of what the economic process is and how it functions.

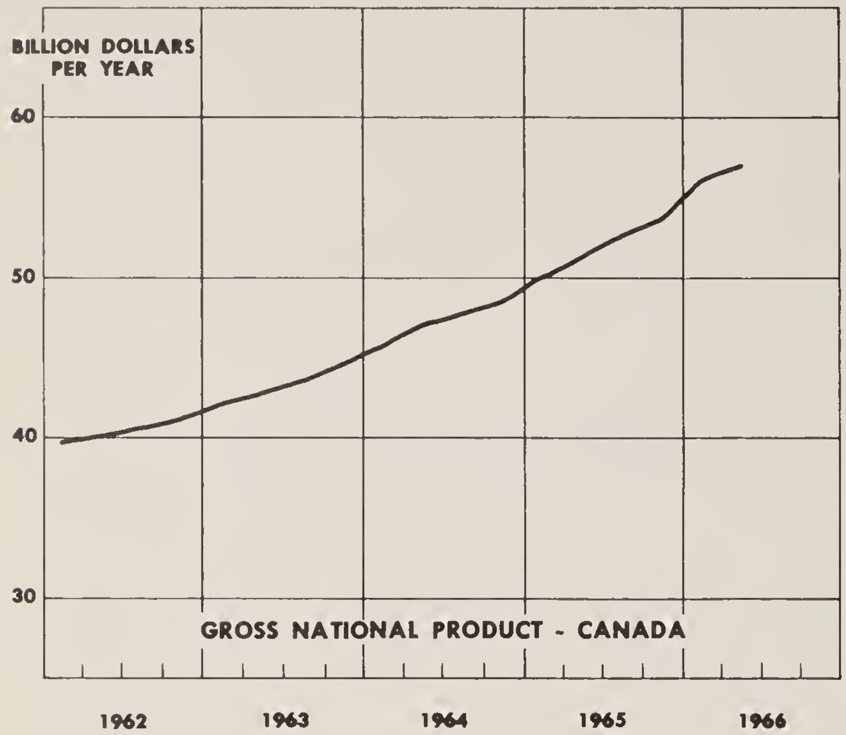
The Women's Advisory Committee has found widespread interest in its programs which include information about the role of the consumer. The Committee is now extending its activities, on a pilot basis, into the high schools. This pilot program is offering to Grade XII and Grade XIII students an introductory lecture, utilizing the diagram representing the basic circle of flow and placing particular emphasis on the probable future role of the student as a producer. This lecture is followed by a second lecture characterizing the economic factors at work in the region in which the students live and showing how these factors determine the type and level of economic activity in the region.

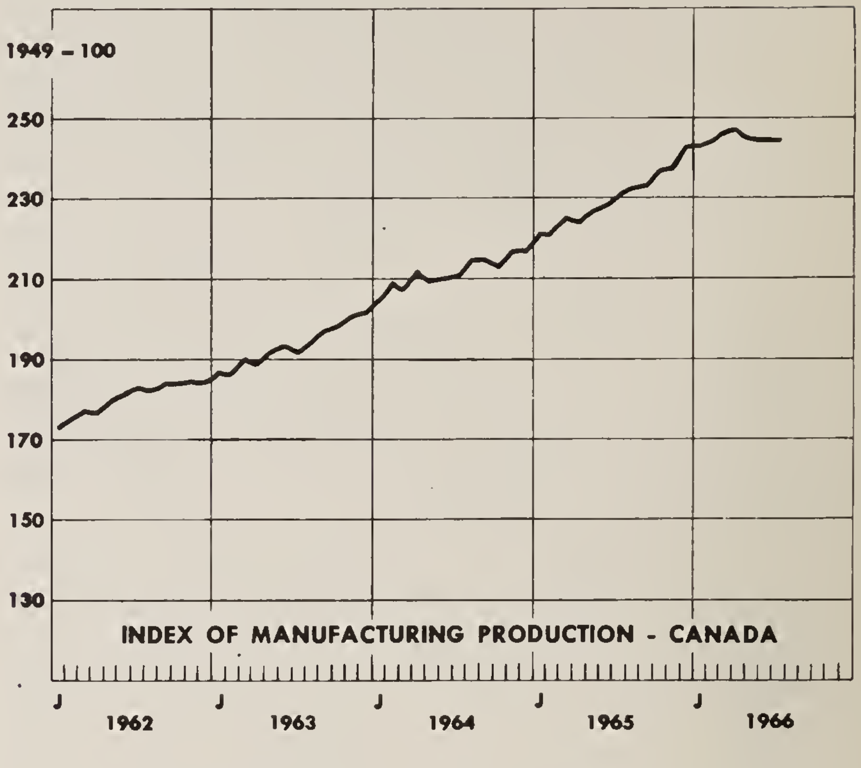
Two presentations of this kind have now been made, one at Port Colborne and one at Kenora. It is hoped that within the next few weeks, the economists who prepared and gave the lectures, will be able to assess with the teachers the usefulness of the presentations.

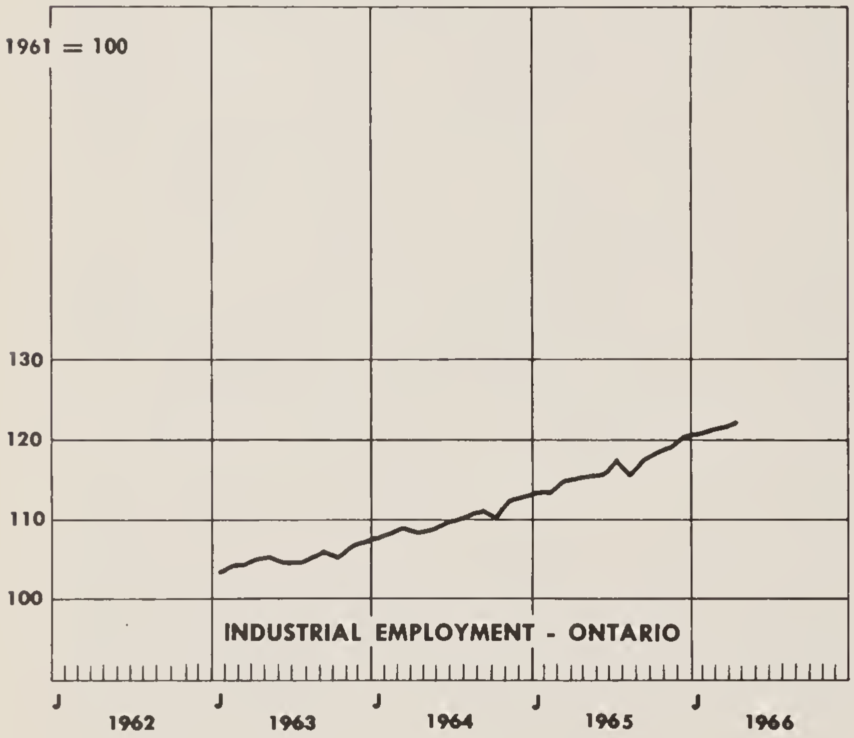
In urging the need for widespread, simplified instruction in economics, ultimately because of the importance of his economic well-being to the individual and to society, it should be made clear that most economists are aware of the danger of economic values becoming paramount in our society. For this reason the pilot program being offered in the high schools includes an explicit statement of the fact that political, social or cultural well-being will not, in some magical way, emanate from the economic process. The economic process can provide material well-being and material well-being only. Anything else must be separately fostered. At the same time, every aspect of the individual's and the nation's life requires a basis of wealth and only the economic process can produce wealth. Students were therefore urged to formulate, as clearly as possible, an understanding of the relationship between the economic, political, social and cultural aspects of the individual's and the nation's life.

This idea should also accompany a course of simplified instruction in economics for adults. The non-economic is not strictly the concern of economics; but since economics touches the individual so closely and since such a course would be designed to implicate him consciously in the economic process, the economist has the responsibility to point out the limit, as well as the extent, of the usefulness of the economic process.

ECONOMIC INDICATORS–SEASONALLY ADJUSTED


GROSS NATIONAL PRODUCT - CANADA


INDEX OF MANUFACTURING PRODUCTION - CANADA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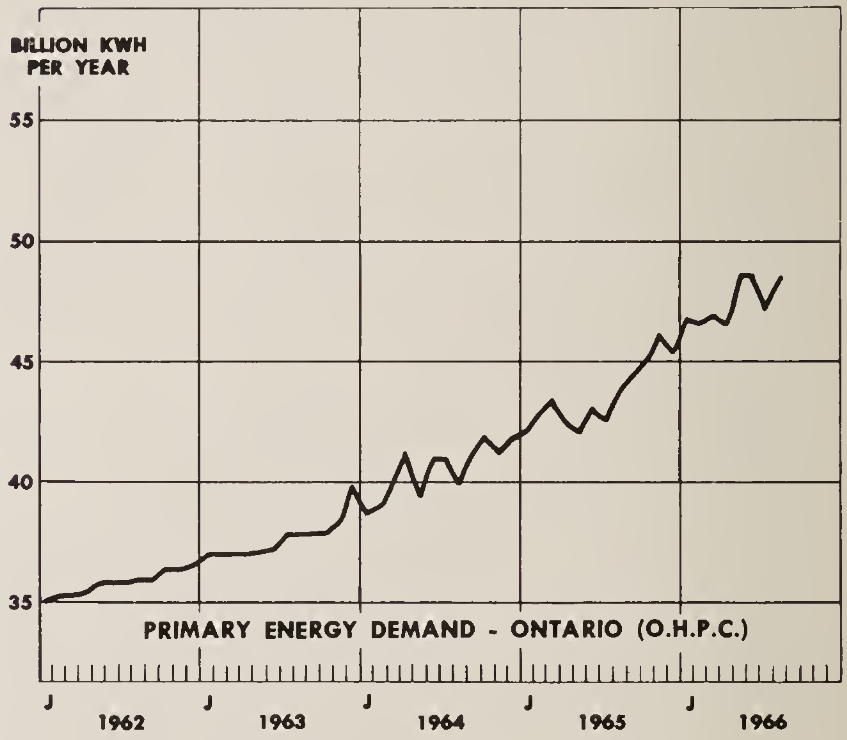
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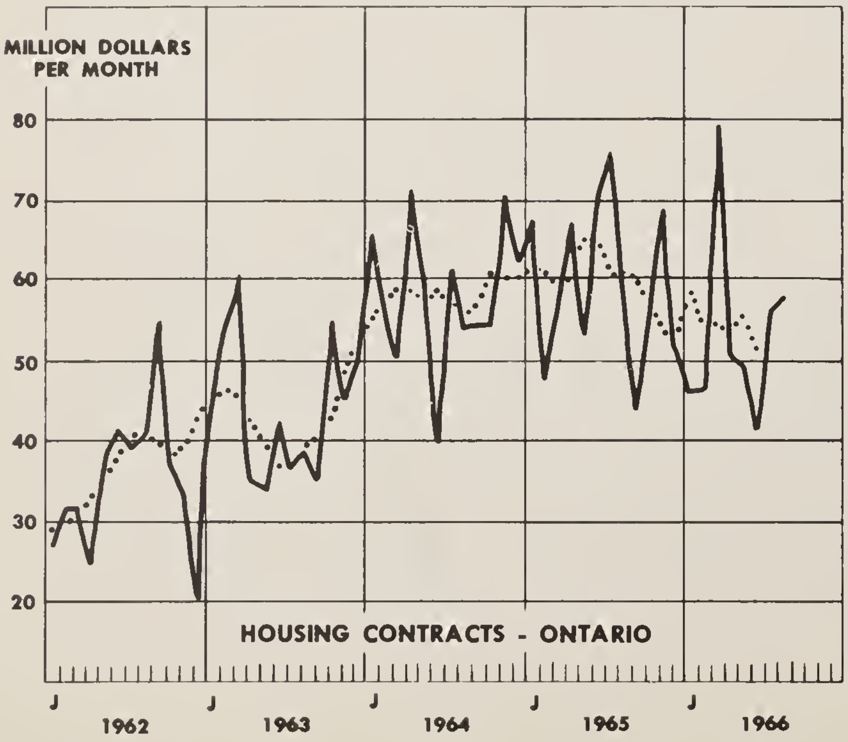
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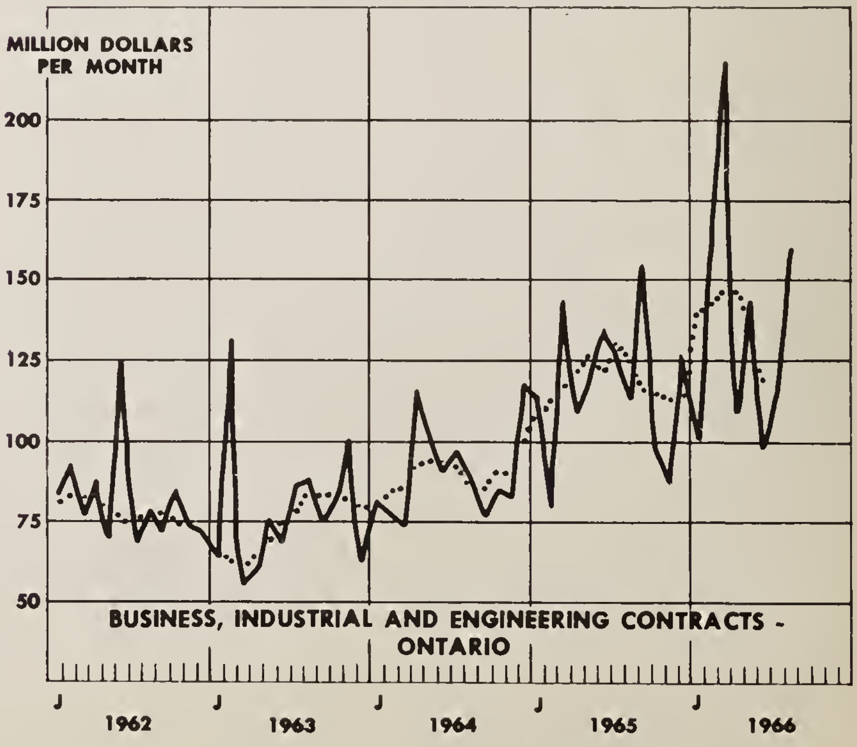
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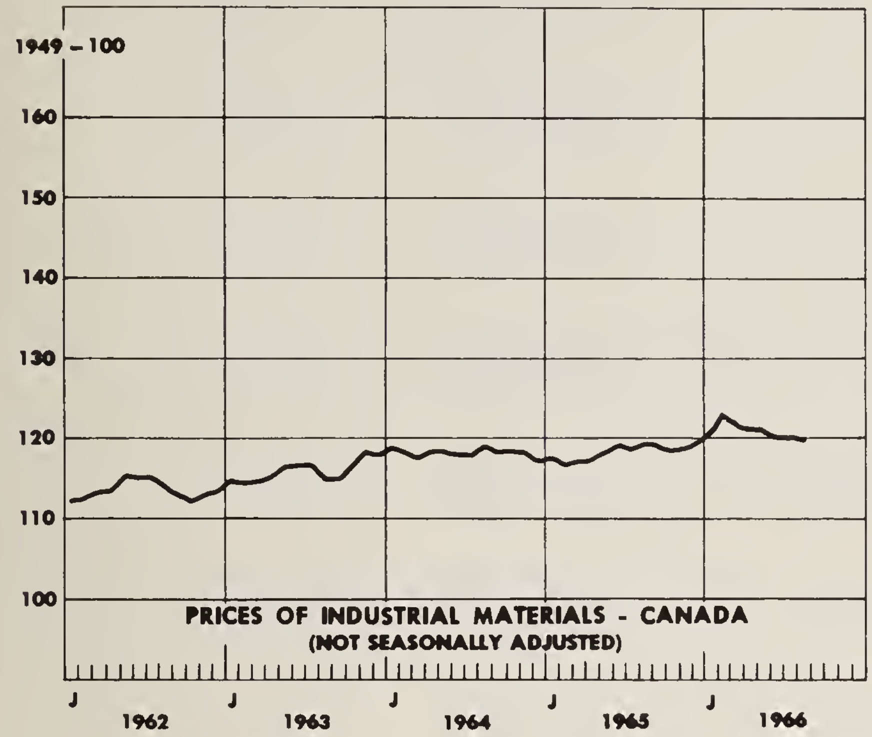
ECONOMIC INDICATORS–SEASONALLY ADJUSTED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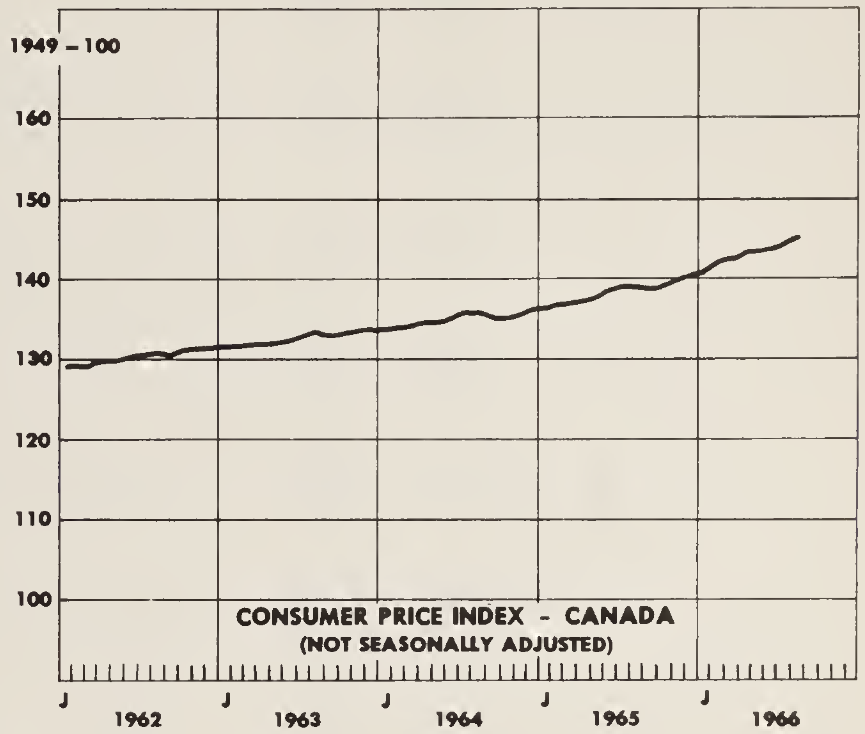
CONSUMER PRICE INDEX - CANADA
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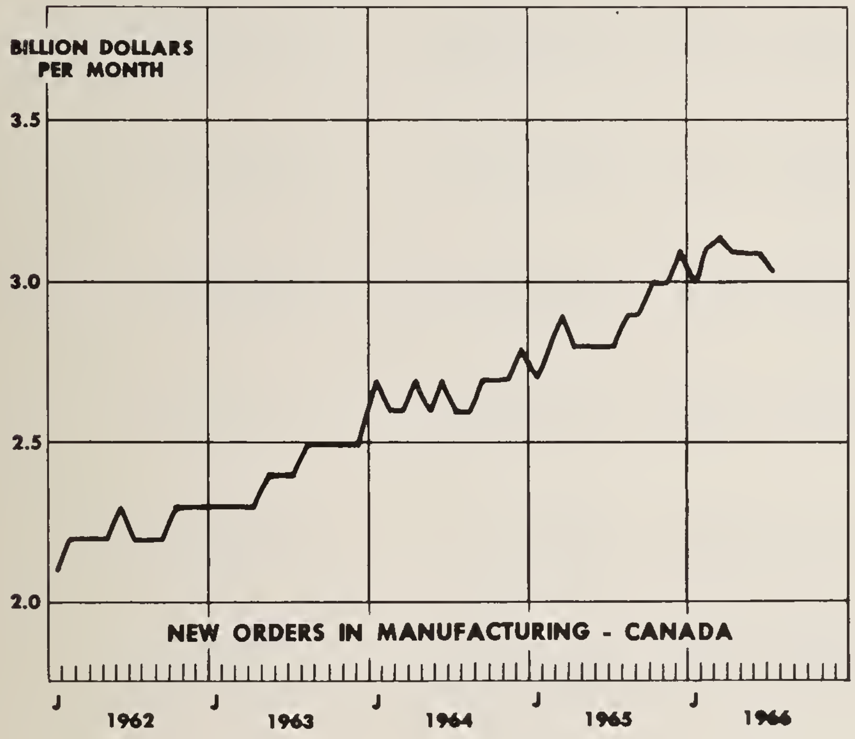
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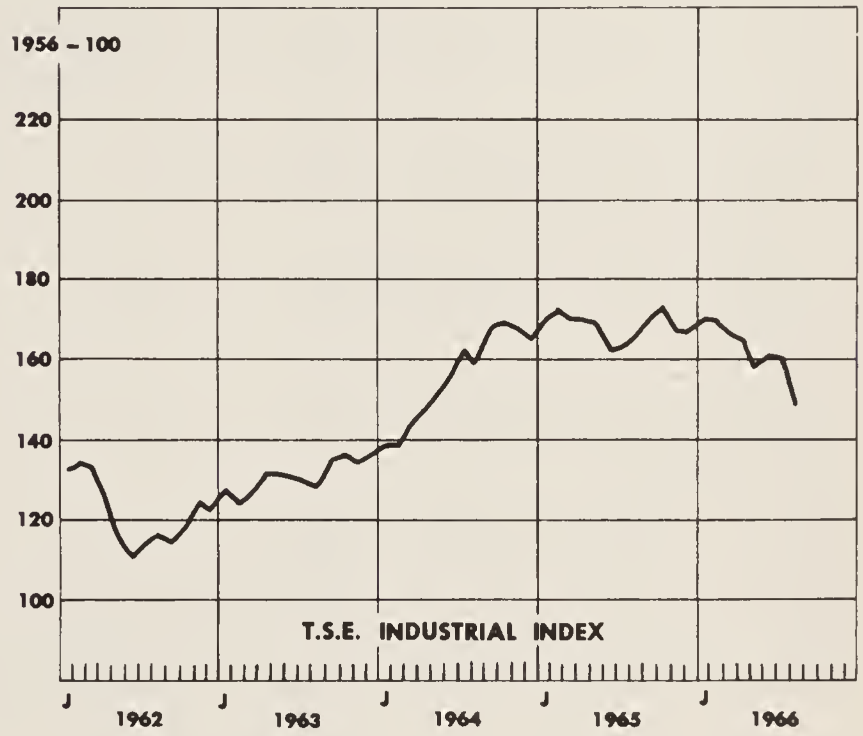
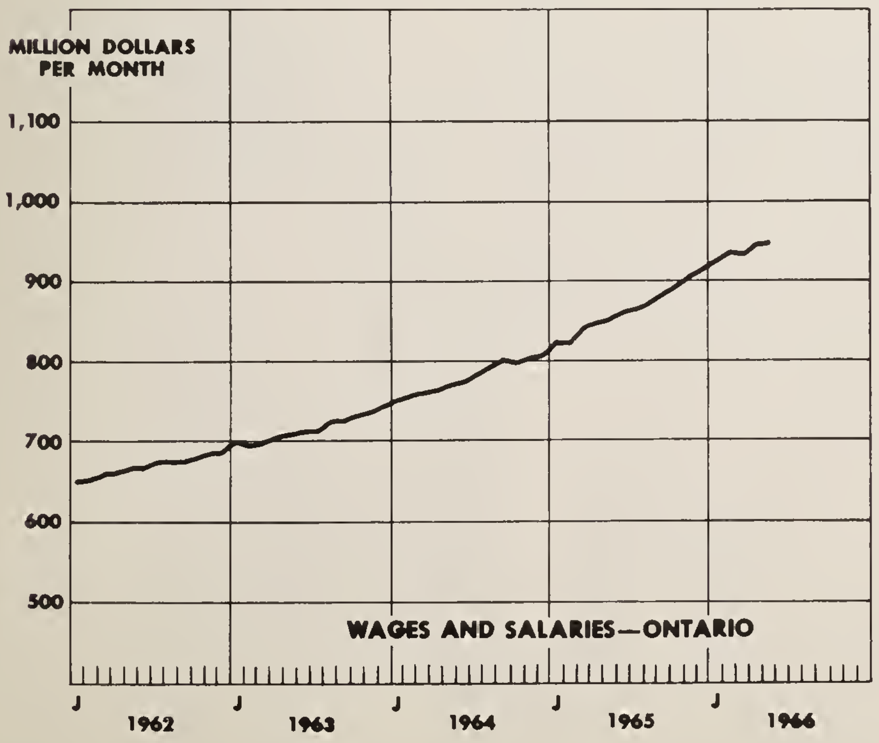
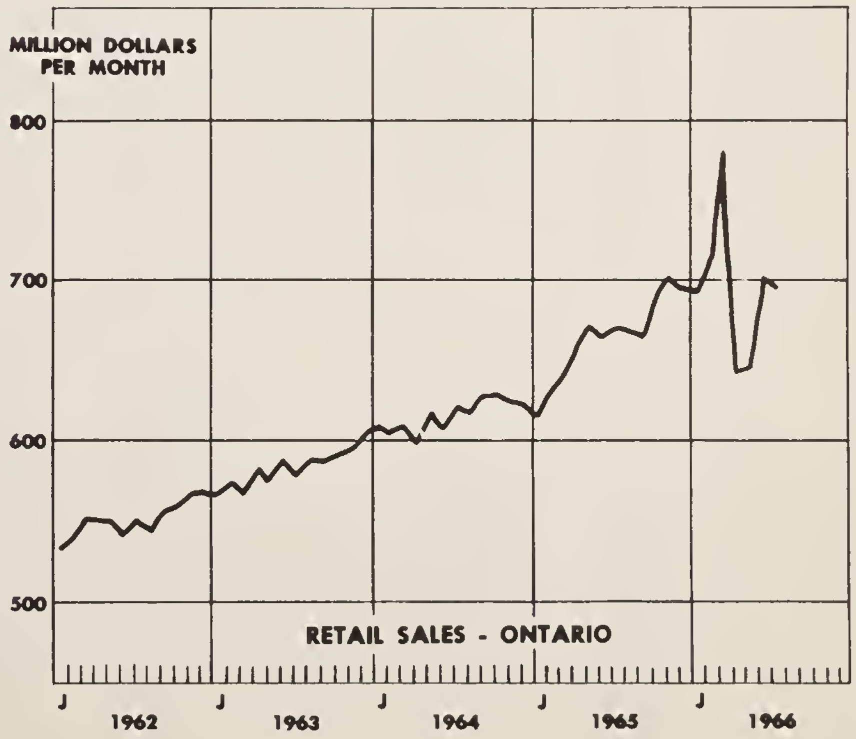

T.S.E. INDUSTRIAL INDEX


WAGES AND SALARIES—ONTARIO


RETAIL SALES - ONTARIO

ONTARIO ECONOMIC INDICATORS - SEASONALLY ADJUSTED

(* Figures for Canada)

		1965						1966							
LEADING INDICATORS		July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	June	July	Aug.
Average Weekly Hours Worked in Manufacturing	Number	40.8	40.9	40.7	41.1	41.3	42.0	41.0	41.3	41.2					
New Dwelling Unit Starts	Number	4,770	7,377	4,464	3,764	4,708	4,634	5,805	5,061	4,634	3,266	4,444	3,845	3,563	3,102
New Orders in Manufacturing*	$ Million	2,849	2,909	2,897	3,005	3,014	3,103	2,996	3,123	3,141	3,092	3,088	3,086	3,030	
Housing Contracts	$ Million	76.2	59.1	44.3	56.6	68.9	51.9	46.4	46.4	79.6	50.8	49.5	41.4	56.2	58.0
Business, Industrial and Engineering Contracts	$ Million	127.8	115.0	155.7	98.1	87.6	125.8	101.8	162.8	218.2	109.4	143.0	99.0	116.4	151.7
Money Supply*	$ Million	19,149	19,560	19,596	19,724	19,766	19,789	19,813	19,879	20,014	20,169	20,193	20,160	20,412	20,695
T.S.E. Industrial Index	1956=100	163.9	166.8	171.4	174.2	167.7	168.1	171.2	169.8	167.1	164.9	158.6	161.7	160.5	148.6
COINCIDENTAL AND LAGGING INDICATORS															
New Dwelling Unit Completions	Number	2,153	4,075	3,269	2,830	3,825	4,570	5,553	4,382	5,230	6,994	4,191	6,956	7,390	5,645
Average Hourly Earnings in Manufacturing	$	2.24	2.25	2.27	2.29	2.30	2.27	2.31	2.33	2.33					
Gross National Product*	$ Million	- - -	- - -	52,704	- - -	- - -	53,760	- - -	- - -	56,112	- - -	- - -	57,008		
Cheques Cashed in Clearing Centres	$ Million	4,184	4,634	4,287	4,313	4,363	4,526	4,687	4,476	4,518	4,596	4,450	4,481	4,511	
Retail Trade	$ Million	672	669	667	694	703	697	695	715	780	646	647	701	696	
Labour Force	000's	2,626	2,642	2,608	2,605	2,621	2,641	2,668	2,676	2,688	2,706	2,705	2,717	2,727	2,768
Employed	000's	2,556	2,574	2,541	2,556	2,562	2,582	2,605	2,615	2,626	2,651	2,639	2,645	2,643	2,679
Unemployed	000's	72	68	67	49	59	59	63	61	62	55	66	72	84	89
Unemployed as % of Labour Force	%	2.7	2.6	2.6	1.9	2.3	2.2	2.4	2.3	2.3	2.0	2.4	2.6	3.1	3.2
Wages and Salaries	$ Million	868	874	888	895	908	917	924	937	936	946				
Industrial Employment	1961=100	117.8	115.8	117.4	118.4	119.0	120.3	120.7	121.1	121.9	122.3				
Total Industrial Production*	1949=100	254.9	258.2	260.2	261.6	264.0	268.6	268.9	271.5	273.8	274.1	274.0	273.5	271.4	
Total Manufacturing		231.3	232.8	233.7	237.1	237.6	242.5	243.3	244.6	246.8	247.2	245.5	245.2	245.1	
Non-Durables		225.2	226.3	227.1	230.2	229.1	234.7	235.5	236.8	240.4	240.3	239.7	240.0	241.0	
Durables		238.5	240.4	241.5	245.0	247.5	251.6	252.5	253.7	254.3	255.2	252.3	251.2	249.9	
Mining		360.7	373.9	383.7	362.2	377.8	385.0	372.7	387.1	390.4	393.5	397.8	393.8	378.6	
Electric Power and Gas Utilities		438.8	451.5	456.0	471.2	478.0	471.6	488.9	490.7	492.3	485.5	503.5	506.1	496.9	
Primary Energy Demand (Annual Rate)	BKWH	42.59	43.67	44.51	44.98	46.11	45.50	46.71	46.60	46.88	46.62	48.61	48.57	47.18	48.45
ECONOMIC INDICATORS NOT SEASONALLY ADJUSTED															
Domestic Exports*	$ Million	770.4	685.6	701.0	772.2	898.0	796.7	722.9	674.5	768.7	753.2	910.0	834.5		
Imports for Consumption*	$ Million	732.3	660.5	724.7	763.6	895.3	786.9	706.9	667.9	830.8	775.1	914.0	899.2	737.8	
Foreign Exchange Reserves*	US $ Million	2,492	2,598	2,614	2,644	2,681	2,665	2,562	2,548	2,510	2,469	2,412	2,342	2,315	2,281
Prices, Industrial Materials*	1935-39=100	259.5	260.9	260.4	259.3	259.4	261.3	265.4	267.9	264.6	264.7	264.2	263.0	262.4	260.6
Business Failures	Number	64	65	74	79	76	61	70	79	80	75	73	90	56	58
Business Failures - Liabilities	$ Million	4.0	19.7	9.1	2.7	3.4	3.8	3.4	7.0	4.7	10.0	5.5	6.5	2.5	7.9

The Ontario Economic Review *is prepared and edited monthly in the Economic Analysis Branch of the Department of Economics and Development and is available free of charge. The review is intended to provide current information on economic activity in Ontario and to act as a forum for the results of research in the public service on matters affecting the Ontario economy. The signed articles reflect the opinions of their authors and do not necessarily represent the views of the Economic Analysis Branch. All correspondence should be directed to the Editor,* Ontario Economic Review, *Economic Analysis Branch, Department of Economics and Development, 950 Yonge Street, Toronto 5.*

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ONTARIO ECONOMIC REVIEW

DEPARTMENT OF ECONOMICS AND DEVELOPMENT

Hon. Stanley J. Randall, Minister

Stuart W. Clarkson, Deputy Minister

OFFICE OF THE CHIEF ECONOMIST

H. Ian Macdonald, Chief Economist

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THE ONTARIO ECONOMY

FEB 1967

From the movements of economic indicators in the past few months it has become quite apparent that economic growth has moderated from the very rapid pace of late 1965 and early 1966. Consistently high rates of growth have given way to either slower or erratic movements. Ontario's construction activity for one has been quite unsettled in relation to 1965, with contract awards rising considerably above last year's level in some months, falling behind in others. For example, construction contract awards were valued at $183.7 million in September according to the *Southam Building Guide*, 16.6 per cent less than 12 months earlier; yet in October they were up to $214.9 million, a full 35 per cent higher than October 1965. In September only industrial construction awards were up, but in October all categories except engineering were higher than a year ago.

One indicator which has been more consistent – unfortunately so – has been the number of housing starts in Ontario. Only during a few months of 1966 has it exceeded the corresponding 1965 number. During September, starts numbered 3,730 – down 21.2 per cent from 1965. But the picture brightened the following month as the number climbed to 4,520 dwelling units, one per cent more than October 1965. Increases in starts across many of Ontario's centres accounted for this improvement, although starts in Metropolitan Toronto remained well below the level of last year.

The lack of sustained growth has extended into industrial production as well. During the summer Canada's seasonally adjusted Index of Industrial Production was repeatedly lower than the April high of 274.1 (1949=100), but in August it finally rose to 274.4. This 1.3 per cent increase from July was the first gain since April, and was due principally to a 3.6 per cent rise in the mining component and a 3.5 per cent increase in electric power and gas utilities. Manufacturing rose too, but only by 0.6 per cent. Non-durables registered a gain of 0.2 per cent over the month, while durables, spurred by rising motor vehicle production, went up 1.0 per cent.

In spite of the slower progress of industrial production in recent months, the level of production still remains over six per cent higher than a year ago. This points out the very high rate growth prevalent at the end of 1965 and the beginning of 1966 – growth which was not at all sustainable.

Finance

Partly responsible for the present state of the economy — and undoubtedly to have a decided impact in 1967 – is the fact that capital expenditures have for some time been increasing much more rapidly than have sales. (Conditions such as these indicate that capacity may be becoming excessive in relation to sustainable demand.) The result has been an inevitable depressing effect upon corporate profits and profit margins. This, in turn, has led corporations to depend more heavily on outside capital sources for their investment commitments.

Earlier in 1966, the federal government introduced policies to slow the overheating economy to a more sustainable growth rate. More recently it has become apparent that restraints must be relaxed, especially with respect to money and credit, in order to avoid an unnecessary slowdown in the economy.

While tight money conditions continue to be much in evidence, the new high levels of money and banking indicators imply that the urgency of this condition has been discounted and that interest rates are unlikely to rise further. With current bank statistics largely influenced by seasonal factors, bank notes in circulation, savings deposits, bank loans and the total "money supply" are at the highest levels ever attained.

Note circulation of the Bank of Canada has increased, in the week ending November 2nd, to a record $2,606.6 million. This is the third consecutive year in which circulation has set a new high. Note circulation generally increases further in December, and with last year's expansion to year-end exceeding $70 million, 1966's year-end peak will likely be in excess of $2,700 million. The annual increase in note circulation has continued for many years, with the annual peaks between 1952 and 1965 advancing from $1,564 million to $2,564 million. This expansion reflects the fact that more currency is needed for a growing population with increasing discretionary spending income at its disposal. This need would have been much greater but for the growing use of bank cheques to pay bills, and the proliferation of credit cards.

Savings deposits at chartered banks, at November 2nd, were also at a record $10,524 million level, representing an increase of $651 million or 6.6 per cent over last year. Savings deposits similarly have posted steady increases for many years. Gains have tended to be generally regular with the usual exceptions of May, on account of moving and furniture expenditures, and November, when savings are withdrawn to subscribe to Canada Savings Bonds.

General loans of the chartered banks – a category comprising business loans, personal loans and loans to farmers and institutions – increased by $53 million in the week of November 2nd, rising to a new record high of $10,237 million. These were $698 million or 7.3 per cent above the level of a year ago. "Total loans", which comprise general loans plus loans to provinces, municipalities, grain dealers and instalment companies, also attained a new high at $11,609 million, up $861 million or 8.0 per cent above the level of a year ago.

The expansion of Canada's money supply, consisting of chartered bank deposits plus currency (notes and coin) held outside banks, has been particularly noteworthy. The increase for the week of November 2nd was $128 million, bringing the total to $21,124 million – $1,347 million or 6.8 per cent over the position a year ago. Further year-end increases in the money supply are to be anticipated as business requirements for increased liquidity rise to meet the increase in trade just prior to Christmas.

An expanding money supply usually is conducive to declining interest rates; yet this year rates have been rising. The extension of tight-money conditions thus might well be attributable not only to the absence of imported capital but to a decided reduction in the velocity at which money changes hands – a factor influenced to some extent by the collapse of Atlantic Acceptance.

This year's rise in interest rates, however, could be only partly due to these two foregoing considerations. It remains quite clear that the Canadian economy continues to be closely bound to major U.S. developments. High interest rates – Canada's highest in about forty years – have thus been attained to some extent in response to recent increases in U.S. rates. This has added to the burden on local capital markets as would-be Canadian borrowers in U.S. markets have been obliged to seek their capital accommodation through domestic channels.

High interest rates have also directed numerous prospective borrowers, at all levels, to postpone or curtail new capital financing programs. For the first 10 months of 1966, total sales of new Canadian government, provincial, municipal and corporate bonds, with a maturity of more than two years, were down 7.7 per cent to a value of $3.27 billion from 1965's volume of new financings. In contrast, for the first five months of this year – just prior to the emergence of higher interest rates – new financings, at $1.83 billion, were running almost two per cent above the previous year. The proportion of new issues payable in U.S. funds has declined noticeably; at a value of $694 million, they represent only 21.3 per cent of all borrowings and are some 12.7 per cent below last year's corresponding total. Over 60 per cent of total U.S. pay issues were negotiated during the first five months of the year.

Total bond financings during the first 10 months of 1966 were distributed as follows: Canadian direct and guaranteed bonds, $625 million; provincial issues, $1.05 billion; Ontario municipalities, $148 million; Quebec and Maritime municipalities, $207 million; Western municipalities, $38 million; and new corporate bond floatations, $1.20 billion.

The borrowing needs of Canada's federal and provincial governments could impose an additional net new demand of more than $300 million on the bond and money markets before their current fiscal year ends on March 31, 1967. Coupled with continuing tight money and high demand from corporate and municipal borrowers, the markets are being squeezed more severely than at any time in the last 40 to 50 years. The only apparent federal requirement is for $450 million to redeem two issues maturing on December 15th. As this amount will be "rolled over" it does not constitute net new demand, so all of the net new demand will be generated by the provinces. Based on budgetary estimates, the provinces require $1.2 billion to $1.4 billion in new capital this current fiscal year. Of that total, about $330 million is required to redeem maturing issues, leaving a net new demand of about $1 billion. In the period from April 1st through October 31st, or for the first 7 months of this fiscal year, the provinces have raised just over $750 million in gross new issues. This leaves about $500 million still to be raised. Some of the demand may be met from provincial shares of Canada Pension Plan funds. An estimated $380 million of CPP funds will be available to nine provinces in this fiscal year. Quebec, which administers its own pension plan, expects to have some $200 million available for investment.

The activity of investors in the equity markets illustrates their uncertainty about continued high economic growth after the end of 1966. The decidedly lower prices since the all-time high in mid-January have made it increasingly apparent that high interest rates have diverted considerable amounts of money from the equity market to bonds and other loan media. A number of institutions, like mutual funds, have further temporized by building up their cash positions in anticipation of being able to acquire equities at lower prices. The position of these investors has been bolstered by the inability of the stock market to initiate any convincing recovery. Nevertheless, as the economy moderates its pace, lessening the demand for money and consequently making funds more readily available at lower rates, the prospect of a sustained rally from current levels would likely serve to direct temporizing potential buyers back into the market.

THE DISTRIBUTION OF PERSONAL INCOME IN ONTARIO AND THE TEN ECONOMIC REGIONS

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ONTARIO DEPARTMENT OF ECONOMICS AND DEVELOPMENT

In Ontario, just as in other provinces, there are appreciable regional differences in income distribution. Knowledge of such variations is important as personal income represents one of the major determinants of economic activity. Information on income distribution serves many purposes, particularly in areas such as market research, economic planning and the formulation of government policies.

Although fairly extensive raw data on the frequency distribution of personal income have been made available by the Dominion Bureau of Statistics and the Department of National Revenue, a number of difficulties have thus far prevented their integration into a systematic study of interregional differences. Among these are the heterogeneity of the statistics and the conceptual problems in defining income and the income recipient unit. As a result interpretative analysis in the past has been largely confined to national data.

The present pilot study on the frequency distribution of personal income by economic regions and component sub-areas was initiated by the Applied Economics Branch as part of a continuing econometric program⁽¹⁾ to provide detailed quantitative analysis of major sectors of the Ontario economy.

The primary objectives of this study are to examine the analytical significance of available statistics, to develop income distribution data on a regional and sub-regional basis, and to evaluate the shifts occurring over time in the relative inequality of income in Ontario.⁽²⁾

The first section of the report examines in some detail the body of currently available data, their relative merits and the underlying conceptual problems in describing the size distribution of personal income. It also contains a brief outline of the adopted estimation procedures and the derived tabulations by economic regions, counties and districts for the period from 1960 to 1963.

The second part analyses the structural characteristics of the empirical income pattern on a quantitative basis in terms of the Pareto and log-normal distribution and develops measures of relative income inequality on a regional basis.

The last section evaluates briefly, in tentative form, the regional pattern of Ontario's income distribution and derives data on average income per capita for the 10 economic regions and their component sub-areas.

Basic tables relating to Ontario and the economic regions accompany the text while supplementary tabulations for counties and districts are presented in the appendixes.

Estimation of Income Distribution

In line with accepted terminology *income distribution is defined as the absolute or relative frequency of income recipient units by income class.* The frequency distribution of personal income depends on the concept of income adopted and the definition of the income recipient unit used.

Thus from the point of view of data collection there is the problem of definition of the recipient unit: it may be either the individual or a composite such as the family or household. The income concept to be used should include not only current money income, wages in kind and welfare or transfer payments, but also the imputed benefits derived from the direct use of property and self-produced goods.

The two basic sources of comprehensive income statistics in Canada are the decennial census conducted by the Dominion Bureau of Statistics and the income tax statistics compiled by the Department of National Revenue. Whereas the census has adopted

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(1) See R. H. Frank's earlier article "A Pilot Study on Regional Labour Income in Ontario," *Ontario Economic Review*, November, 1964.

(2) The author acknowledges with appreciation the contribution of Miss D. Gerkis, economist with the Applied Economics Branch, in assisting with the preliminary research and carrying out the extensive computational work for this project.

the family as the primary reporting unit, taxation statistics are based on personal income tax returns, thus providing detailed information on the universe of individual income recipients.

The recently published Bulletin SX-5, "Incomes of Individuals", a supplement to the 1961 Census of Canada, is not based on a complete enumeration but on a sample survey, and excludes farm and investment income. Coverage is confined to members of the active labour force, thus eliminating the income of retired people as well as transfer and welfare payments. As a result the survey is not fully comparable to the main body of census income data or taxation statistics. Although limited to the size distribution of non-farm employment income, the survey data provide strong evidence supporting our findings derived from taxation statistics.

Although for certain analytical purposes income distribution data on a composite recipient unit basis are preferable, the value of such tabulations is greatly reduced if not supplemented by a size distribution of the adopted unit and a specification of the number of multiple income units. As both qualifications are only partially met under the present census set-up, the distributional pattern obtainable from taxation statistics represents invaluable complementary information.

In terms of the income concept used, the two statistical sources are with the exceptions already noted virtually identical. Both compilations exhibit similar deficiencies in the coverage of imputed and farm income.

However, while the census data are to a large extent subject to bias due to non-reporting and intentional or unintentional errors of response without the compensating effect of punitive action or threat, income tax returns must be corroborated by tangible evidence and are closely scrutinized by the taxation authorities. They therefore appear to be a more reliable source for income estimation.

An additional factor of considerable significance in favour of taxation statistics is the fact that census statistics are available only every 10 years while income tax data are compiled on an annual basis. This provides unmatched continuity of record – indispensable for economic analysis. In view of these considerations it was decided to use taxation statistics to derive estimates of the income distribution for Ontario, the constituent economic regions and their component sub-areas. The Department of National Revenue publishes in *Taxation Statistics* annual data on the number of taxable and non-taxable personal income tax returns by income class on a county or census division basis. Continuity of record has existed since 1960 when the currently used delineation of income classes and reporting procedures were first introduced.

These statistics are compiled from a sample of income tax returns filed by individuals during the taxation year. While a straight 10 per cent sample was used prior to 1957, a more complex stratified sample was subsequently introduced. As a result the precision of the estimates has been greatly improved.

On the basis of this conceptual background, the income distribution for Ontario, the 10 economic regions and their constituent sub-areas was estimated for seven continuous income classes for the period from 1960 to 1963 by aggregating taxable and non-taxable returns for each income class. Reviewing the total number of income tax returns filed annually, it is apparent that a relatively large portion falls in the non-taxable category, representing on average approximately one-fifth of all returns.

	No. of Taxable Returns	No. of Non-Taxable Returns	Total	Non-Taxable as % of Total
1960	1,850,428	482,538	2,332,966	20.7
1961	1,886,702	485,700	2,372,402	20.5
1962	1,943,215	478,345	2,421,560	19.8
1963	2,044,518	468,324	2,512,842	18.6

About 98 per cent of the non-taxable returns relate to income under $4,000, with the income group up to $2,000 accounting for 75 per cent. The class intervals $2,000 to $3,000 and $3,000 to $4,000 represent some 17 per cent and six per cent respectively.

The resultant distributional pattern for Ontario and the 10 economic regions during the period under review is presented in Table I. A comparable and more detailed breakdown on a county and district basis is shown in Appendix A, page 10.

The high proportion of income recipients at the lower end of the income scale is in agreement with the findings of similar studies carried out in the United States, the United Kingdom and other countries.

The marked skewness of Canada's income distribution at the national and provincial level is statistically confirmed by a series of occasional, special surveys conducted by the Dominion Bureau of Statistics in the 1950's and early 1960's. Although the relevant sample surveys exclude the important farm income component, they show a heavy concentration of income recipients in the lower income classes compatible with the findings of the present study.

TABLE I
FREQUENCY DISTRIBUTION OF PERSONAL INCOME BY ECONOMIC REGIONS, 1960-1963

(Per cent of total income recipients)

Income Class $	Metropolitan	Niagara	Eastern Ontario	North-eastern Ontario	Lake St. Clair	Lake Erie	Mid-Western Ontario	Lake Ontario	Lakehead-North-western Ontario	Georgian Bay	Ontario
1960											
under 1,999	23.2	24.9	28.0	24.9	28.9	29.2	29.5	31.6	26.3	37.1	26.1
2,000 - 2,999	19.7	17.2	20.2	15.2	17.2	22.0	20.9	19.7	16.7	22.0	19.1
3,000 - 3,999	19.5	17.8	18.9	16.5	16.5	20.1	20.2	19.3	18.3	19.7	18.9
4,000 - 4,999	15.4	17.5	14.3	17.9	16.2	13.0	15.1	14.0	16.5	10.4	15.4
5,000 - 5,999	8.8	10.9	7.5	12.9	9.3	6.2	6.5	6.9	10.5	4.6	8.8
6,000 - 9,999	9.8	9.5	8.2	11.0	9.8	7.0	5.6	6.7	9.7	4.6	8.9
10,000 and over	3.6	2.2	2.9	1.6	2.1	2.5	2.2	1.8	2.0	1.6	2.8
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1961											
under 1,999	22.4	25.1	27.4	26.0	29.7	28.3	29.4	30.9	26.4	35.6	25.7
2,000 - 2,999	18.7	16.8	18.8	14.2	17.0	21.3	21.1	18.1	16.8	21.7	18.4
3,000 - 3,999	18.5	16.5	18.0	15.5	15.2	19.4	19.1	18.7	15.5	19.1	17.8
4,000 - 4,999	16.1	16.9	14.5	16.9	15.9	13.6	14.5	15.1	17.4	10.9	15.6
5,000 - 5,999	9.5	11.2	7.8	13.3	9.5	6.8	7.1	8.2	11.3	5.5	9.4
6,000 - 9,999	10.8	10.9	10.1	12.2	10.2	7.9	6.5	7.1	10.8	5.6	10.0
10,000 and over	4.0	2.6	3.4	1.9	2.5	2.7	2.3	1.9	1.8	1.6	3.1
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1962											
under 1,999	20.6	23.2	25.9	24.9	27.6	27.5	27.2	28.7	26.0	34.6	24.1
2,000 - 2,999	17.7	16.4	18.9	14.3	16.3	19.6	19.7	18.2	15.2	20.2	17.7
3,000 - 3,999	18.4	15.4	18.2	15.6	14.9	18.8	19.5	18.7	17.2	19.2	17.7
4,000 - 4,999	15.5	15.8	14.2	16.3	16.3	14.5	15.2	13.5	17.1	11.5	15.2
5,000 - 5,999	10.8	12.5	8.2	13.3	10.1	8.2	8.5	9.4	10.1	6.0	10.3
6,000 - 9,999	12.5	13.8	10.6	13.6	11.9	8.8	7.5	9.3	12.5	6.7	11.6
10,000 and over	4.5	2.9	4.0	2.0	2.9	2.6	2.4	2.2	1.9	1.8	3.4
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1963											
under 1,999	21.3	22.9	26.2	25.8	27.0	27.5	26.6	28.9	25.7	34.7	24.3
2,000 - 2,999	16.7	16.4	17.0	14.2	16.3	19.5	19.8	17.2	16.3	19.7	17.0
3,000 - 3,999	17.6	14.8	17.3	14.7	13.8	18.0	18.4	17.5	15.0	18.3	16.8
4,000 - 4,999	15.3	15.5	14.8	15.7	13.6	14.5	15.0	13.9	16.5	12.2	15.0
5,000 - 5,999	10.8	13.1	9.5	13.2	11.9	8.2	9.0	10.1	12.0	6.4	10.8
6,000 - 9,999	13.5	14.1	11.1	14.3	14.3	9.4	8.5	10.2	12.5	6.9	12.4
10,000 and over	4.8	3.2	4.1	2.1	3.1	2.9	2.7	2.2	2.0	1.8	3.7
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Income Class	1955 DBS Survey	SX-5 1961 DBS Survey	1961 Taxation Statistics
$	(Per cent of total income recipients)		
under 1,999	26.4	24.0	25.7
2,000 - 3,999	36.3	36.9	36.2
4,000 - 4,999	15.1	16.2	15.6

Supplementary data from the census and other sources suggest that the high percentage of low income recipients is largely accounted for by (a) farm income in depressed rural areas, (b) the fluctuating number of part-year income earners who, in many instances, do not belong to the regular labour force, (c) the low income of retired people whose current earnings supplement planned drawings of accumulated savings, (d) the modest level of earnings of young persons first entering the labour market, and (e) the under-valuation of imputed earnings.

Econometric Analysis of the Empirical Income Distribution

The pronounced skewness of empirical frequency distributions of personal income has led to the development of a variety of income distribution models designed to measure and to interpret the degree of inequality of observed income levels. The selection of a particular mathematical formulation of the distributional pattern is dependent on the economic significance that can be attached to its parameters and the degree to which the fitted function approximates the data.

While recent econometric studies suggest that income flows originating from different sources such as labour income and professional and entrepreneurial revenue generate widely varying distribution patterns, aggregate income data appear to be most adequately graduated by the well-known Pareto function and the log-normal probability distribution.

Pareto, in studying the data concerning incomes in various countries at different periods, found that the logarithm of the percentage of units with an income in excess of some given value is a negatively sloped linear function of the logarithm of that value:

$$Y = A X^{-\alpha} \quad \text{.................................} (1)$$

where Y is the percentage of recipient units with an income in excess of X. Taking logarithms, equation (1) can be converted to the derived linear expression

$$\log Y = \log A - \alpha \log X \quad \text{...........} (2)$$

which is susceptible to parametric estimation.

While equation (1) is based on a cumulative distribution, the corresponding density function expressing relative frequency for any given class interval is given by

$$P(Y) = \alpha A X^{-(\alpha+1)} \quad \text{...................} (3)$$

which represents the first derivative of the primary function (1). *The value of the parameter α can be regarded as a relative measure of the inequality of the income distribution.* The larger the value of the coefficient α, the more concave the hyperbola of the distribution curve and the greater the difference in the number of units allocated to the various income classes. Empirical studies show that the magnitude of the parameter α varies within the limits of 1.2 to 2.4, exhibiting considerably greater variability at the regional level.

I: PARETO FUNCTIONS FOR INCOME LEVELS OVER $2,000, BASED ON SIX CLASS INTERVALS

	1963		*1960*	
	Equation	*R²*	*Equation*	*R²*
Y_c	$= \frac{369\ (10^6)}{X^{1.9367}}$	0.9224	$\frac{154\ (10^7)}{X^{2.1262}}$	0.9945
Y_o	$= \frac{242\ (10^6)}{X^{1.8804}}$	0.9139	$\frac{105\ (10^7)}{X^{2.0745}}$	0.9386
Y_1	$= \frac{863\ (10^5)}{X^{1.7498}}$	0.9208	$\frac{366\ (10^6)}{X^{1.9417}}$	0.9454
Y_2	$= \frac{496\ (10^6)}{X^{1.9647}}$	0.8809	$\frac{328\ (10^7)}{X^{2.2114}}$	0.9113
Y_3	$= \frac{156\ (10^6)}{X^{1.8284}}$	0.9323	$\frac{939\ (10^6)}{X^{2.0651}}$	0.9511
Y_4	$= \frac{235\ (10^7)}{X^{2.1559}}$	0.8535	$\frac{117\ (10^8)}{X^{2.3629}}$	0.8725
Y_5	$= \frac{391\ (10^6)}{X^{1.9349}}$	0.8779	$\frac{332\ (10^7)}{X^{2.2129}}$	0.9093
Y_6	$= \frac{732\ (10^6)}{X^{2.0292}}$	0.9391	$\frac{163\ (10^7)}{X^{2.1416}}$	0.9636
Y_7	$= \frac{120\ (10^7)}{X^{2.0924}}$	0.9397	$\frac{348\ (10^7)}{X^{2.2382}}$	0.9600
Y_8	$= \frac{221\ (10^7)}{X^{2.1617}}$	0.9086	$\frac{719\ (10^7)}{X^{2.3239}}$	0.9454
Y_9	$= \frac{363\ (10^7)}{X^{2.2160}}$	0.8727	$\frac{422\ (10^7)}{X^{2.2423}}$	0.9072
Y_{10}	$= \frac{510\ (10^7)}{X^{2.2813}}$	0.9466	$\frac{806\ (10^7)}{X^{2.3540}}$	0.9736

II: PARETO FUNCTION (CANADA, 1963) FOR INCOME LEVELS OVER \$6,000, BASED ON 14 CLASS INTERVALS

Equation

$$Y_c = \frac{51.599\ (10^{10})}{X^{2.5822}} \qquad R^2 = 0.9992$$

III: LOG-NORMAL DISTRIBUTION (CANADA, 1963) FOR THE INCOME RANGE \$1,000 TO \$6,000

$$\alpha_1 = 1.1525 \qquad R^2 = 0.9959$$

Symbols:

X = income level

Y_n = percentage of income recipients with income in excess of X

n = o, 1, 2 ..... 10 and c

o = Ontario

1 = Metropolitan

2 = Niagara

3 = Eastern Ontario

4 = Northeastern Ontario

5 = Lake St. Clair

6 = Lake Erie

7 = Mid-Western Ontario

8 = Lake Ontario

9 = Lakehead-Northwestern Ontario

10 = Georgian Bay

c = Canada

Note: The extremely close fit of the model to the data is illustrated by the high coefficients of determination (R^2) which range from 0.999 to 0.854, with the result that the differences between actual and predicted values are very small.

As the parameter $-\alpha$ in equation (2) is equivalent to the slope of the distribution curve after conversion to a straight line on a double-logarithmic scale, the coefficient α can also be interpreted as the elasticity of the relative number of income recipients with respect to the various income class limits:

$$-\frac{d \log Y}{d \log X} = \alpha \ldots\ldots\ldots\ldots (4)$$

In other words α *expresses the relative decrease in the number of units within successively higher income classes.*

In order to determine the structural properties of the income distribution in Ontario and the constituent economic regions, the Pareto function (1) was statistically derived for the empirical data presented in the first section of this study. The respective equations for the initial and terminal years of the time series are presented on page 6, while the values of the parameter α are summarized in the accompanying synopsis:

	1963	1960
	Parameter α	
Metropolitan	1.7498	1.9417
Niagara	1.9647	2.2114
Eastern Ontario	1.8284	2.0651
Northeastern Ontario	2.1559	2.3629
Lake St. Clair	1.9349	2.2129
Lake Erie	2.0292	2.1416
Mid-Western Ontario	2.0924	2.2382
Lake Ontario	2.1617	2.3239
Lakehead-Northwestern Ontario	2.2160	2.2423
Georgian Bay	2.2813	2.3540
Ontario	1.8804	2.0745
Canada	1.9367	2.1262

As is to be expected on the basis of the observed data, the magnitude of the parameter α is in general relatively large but has decreased during the period under review, reflecting the increasing tendency toward a more equitable income distribution. In both years income appears to be more equitably distributed in Ontario than in Canada as a whole, while the Georgian Bay, Northwestern, Northeastern and Lake Ontario regions exhibit a comparatively high degree of income inequality.

Although the statistical correlation of income class and the number of recipient units averaged 93 per cent under the assumption of the Pareto hypothesis, theoretical considerations as well as empirical studies suggest that the overall graduation of the observational data could have been appreciably improved by the application of the log-normal probability density to the lower income range and confining the Pareto function to the upper tail of the income distribution.

While the restriction of available data to seven income classes at the provincial and sub-provincial level made it impossible to fit both distributions simultaneously to the data, the suggested hypothesis was successfully tested for Canada's overall income distribution for which a detailed breakdown into 48 income classes is supplied by the Department of National Revenue. Detailed results of the relevant tests are presented on this page, showing that the Pareto function graduates the national data above the \$6,000 level with an accuracy of virtually 100 per cent, whereas the log-normal probability distribution for the lower income classes explains some 99 per cent of the apparent variation.

TABLE II
INCOME DISTRIBUTION BY INCOME CLASS, 1960-1963
ECONOMIC REGIONS AND PROVINCE
(Per cent of total income recipients)

Income Class $	METROPOLITAN REGION				NIAGARA REGION				EASTERN ONTARIO REGION			
	1960	1961	1962	1963	1960	1961	1962	1963	1960	1961	1962	1963
under 1,999	23.2	22.4	20.6	21.3	24.9	25.1	23.2	22.9	28.0	27.4	25.9	26.2
2,000 - 2,999	19.7	18.7	17.7	16.7	17.2	16.8	16.4	16.4	20.2	18.8	18.9	17.0
3,000 - 3,999	19.5	18.5	18.4	17.6	17.8	16.5	15.4	14.8	18.9	18.0	18.2	17.3
4,000 - 4,999	15.4	16.1	15.5	15.3	17.5	16.9	15.8	15.5	14.3	14.5	14.2	14.8
5,000 - 5,999	8.8	9.5	10.8	10.8	10.9	11.2	12.5	13.1	7.5	7.8	8.2	9.5
6,000 - 9,999	9.8	10.8	12.5	13.5	9.5	10.9	13.8	14.1	8.2	10.1	10.6	11.1
10,000 and over	3.6	4.0	4.5	4.8	2.2	2.6	2.9	3.2	2.9	3.4	4.0	4.1
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Income Class $	NORTHEASTERN ONTARIO REGION				LAKE ST. CLAIR REGION				LAKE ERIE REGION			
	1960	1961	1962	1963	1960	1961	1962	1963	1960	1961	1962	1963
under 1,999	24.9	26.0	24.9	25.8	28.9	29.7	27.6	27.0	29.2	28.3	27.5	27.5
2,000 - 2,999	15.2	14.2	14.3	14.2	17.2	17.0	16.3	16.3	22.0	21.3	19.6	19.5
3,000 - 3,999	16.5	15.5	15.6	14.7	16.5	15.2	14.9	13.8	20.1	19.4	18.8	18.0
4,000 - 4,999	17.9	16.9	16.3	15.7	16.2	15.9	16.3	13.6	13.0	13.6	14.5	14.5
5,000 - 5,999	12.9	13.3	13.3	13.2	9.3	9.5	10.1	11.9	6.2	6.8	8.2	8.2
6,000 - 9,999	11.0	12.2	13.6	14.3	9.8	10.2	11.9	14.3	7.0	7.9	8.8	9.4
10,000 and over	1.6	1.9	2.0	2.1	2.1	2.5	2.9	3.1	2.5	2.7	2.6	2.9
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Income Class $	MID-WESTERN ONTARIO REGION				LAKE ONTARIO REGION				LAKEHEAD-NORTHWESTERN ONTARIO REGION			
	1960	1961	1962	1963	1960	1961	1962	1963	1960	1961	1962	1963
under 1,999	29.5	29.4	27.2	26.6	31.6	30.9	28.7	28.9	26.3	26.4	26.0	25.7
2,000 - 2,999	20.9	21.1	19.7	19.8	19.7	18.1	18.2	17.2	16.7	16.8	15.2	16.3
3,000 - 3,999	20.2	19.1	19.5	18.4	19.3	19.7	18.7	17.5	18.3	15.5	17.2	15.0
4,000 - 4,999	15.1	14.5	15.2	15.0	14.0	15.1	13.5	13.9	16.5	17.4	17.1	16.5
5,000 - 5,999	6.5	7.1	8.5	9.0	6.9	8.2	9.4	10.1	10.5	11.3	10.1	12.0
6,000 - 9,999	5.6	6.5	7.5	8.5	6.7	7.1	9.3	10.2	9.7	10.8	12.5	12.5
10,000 and over	2.2	2.3	2.4	2.7	1.8	1.9	2.2	2.2	2.0	1.8	1.8	2.0
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Income Class $	GEORGIAN BAY REGION				ONTARIO			
	1960	1961	1962	1963	1960	1961	1962	1963
under 1,999	37.1	35.6	34.6	34.7	26.1	25.7	24.1	24.3
2,000 - 2,999	22.0	21.7	20.2	19.7	19.1	18.4	17.7	17.0
3,000 - 3,999	19.7	19.1	19.2	18.3	18.9	17.8	17.7	16.8
4,000 - 4,999	10.4	10.9	11.5	12.2	15.4	15.6	15.2	15.0
5,000 - 5,999	4.6	5.5	6.0	6.4	8.8	9.4	10.3	10.8
6,000 - 9,999	4.6	5.6	6.7	6.9	8.9	10.0	11.6	12.4
10,000 and over	1.6	1.6	1.8	1.8	2.8	3.1	3.4	3.7
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

It is hoped that close cooperation between the recently established Ontario Statistical Centre and the Department of National Revenue will result in a more detailed breakdown of income data from taxation statistics, facilitating a more refined analysis of Ontario's income distribution.

The Regional Pattern of Ontario's Income Distribution

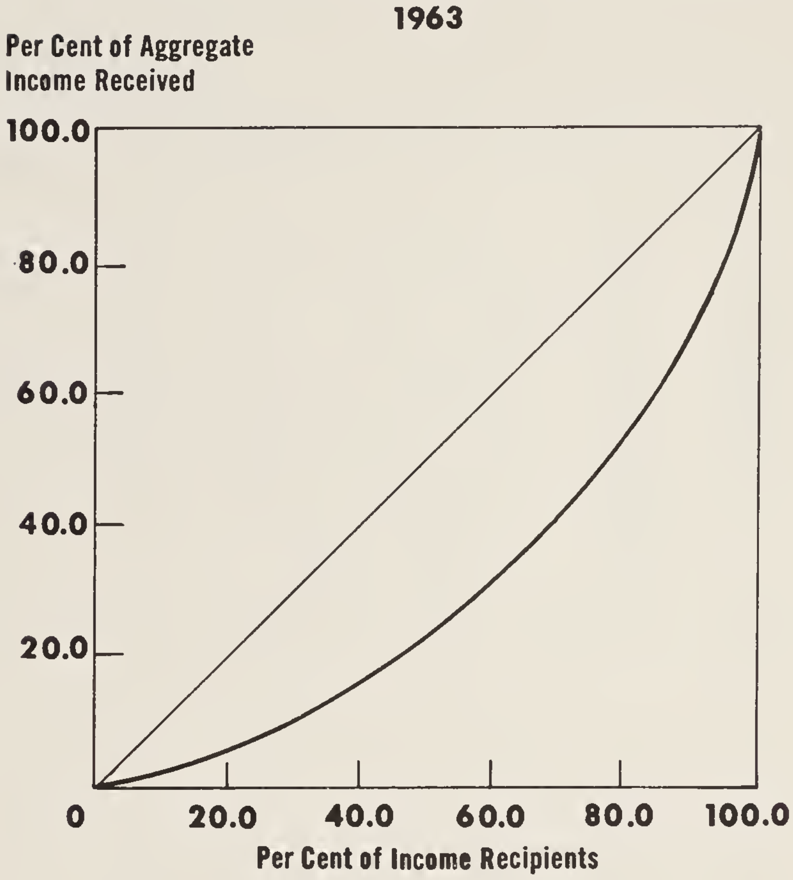
Reviewing the period from 1960 to 1963, it is apparent that Ontario's income distribution exhibits considerable regional variation. While for the province as a whole the group of people receiving less than $2,000 per annum averaged about 25 per cent of the total number of income recipients, this percentage has been consistently higher in the Georgian Bay, Lake Ontario, Lake Erie, Lake St. Clair, Mid-Western and Eastern Ontario regions. This pattern reflects marked differences in employment and wage levels, the degree of industrial development, and in some instances, the existence of depressed rural areas.

Similar variations are encountered at the sub-regional level as shown in Appendix A, presenting detailed information for Ontario's income distribution on a county and district basis.

It should be noted, however, that during the period under review the relative number of recipients in the lower income classes up to $4,000 has steadily declined, reflecting not only rising wage levels but an increasing tendency toward a more equitable distribution of personal income. The gradual shift in the composition of the regional income distribution over time is shown in Table II.

Despite the favourable overall trend there still remains a considerable degree of socially undesirable inequality in Ontario's income distribution. This is readily seen in the accompanying Lorenz diagram which shows the percentage of income recipients in each income class along the abscissa and the proportion of total income accruing to each class on the ordinate.

LORENZ DIAGRAM
INCOME DISTRIBUTION, ONTARIO
1963



The points plotted for the various corresponding values trace out a curve below the 45° line sloping upward to the right from the origin of the coordinate axes. *The deviation of the empirical curve from the diagonal of perfectly equitable distribution reveals the degree of existing inequality.*

The varying degree of prosperity or depression at the regional and sub-regional level is equally well reflected in the data for average income received during the period under review, summarized in Appendix B, page 17.

While a detailed analysis of the statistical material presented in this section is beyond the scope of this study, the availability of these data will in the future greatly facilitate econometric studies and the formulation of regional development policies.

APPENDIX A

INCOME DISTRIBUTION BY ECONOMIC REGIONS, COUNTIES AND DISTRICTS, 1960-1963

(Per cent of total income recipients)

Income Class $	METROPOLITAN					NIAGARA					
						A — Burlington		B — Niagara			
	Halton	Ontario	Peel	York	Region	Brant	Wentworth	Haldimand	Lincoln	Welland	Region
1960											
under 1,999	19.6	21.5	22.3	23.4	23.2	29.0	22.4	34.3	26.5	26.8	24.9
2,000 - 2,999	18.1	15.1	15.8	20.2	19.7	20.5	16.9	18.8	16.5	16.3	17.2
3,000 - 3,999	17.1	17.9	16.2	19.9	19.5	21.7	18.0	20.4	16.7	15.9	17.8
4,000 - 4,999	16.6	21.7	15.9	14.9	15.4	14.4	17.0	13.5	19.6	19.2	17.5
5,000 - 5,999	10.1	12.6	10.0	8.5	8.8	6.4	12.1	6.8	10.2	11.2	10.9
6,000 - 9,999	14.5	9.4	15.0	9.5	9.8	5.8	11.1	4.7	8.0	9.1	9.5
10,000 and over	4.0	1.8	4.8	3.6	3.6	2.2	2.5	1.5	2.5	1.5	2.2
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1961											
under 1,999	20.8	21.4	19.0	22.7	22.4	27.8	22.9	30.3	27.1	27.3	25.1
2,000 - 2,999	15.9	15.8	15.4	19.1	18.7	20.2	16.4	17.3	16.6	15.9	16.8
3,000 - 3,999	17.7	17.8	17.0	18.7	18.5	19.9	17.2	20.5	14.3	14.1	16.5
4,000 - 4,999	15.6	21.5	16.4	15.7	16.1	15.9	15.9	16.3	19.6	18.0	16.9
5,000 - 5,999	12.3	12.0	11.0	9.2	9.5	7.8	12.3	8.2	10.1	11.4	11.2
6,000 - 9,999	14.0	9.8	15.7	10.5	10.8	6.0	12.4	6.1	9.7	11.1	10.9
10,000 and over	3.7	1.7	5.5	4.1	4.0	2.4	2.9	1.3	2.6	2.2	2.6
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1962											
under 1,999	21.7	21.2	19.0	20.6	20.6	27.9	20.8	31.7	23.3	25.8	23.2
2,000 - 2,999	14.8	14.3	15.1	18.2	17.7	20.0	15.9	19.1	16.0	15.9	16.4
3,000 - 3,999	14.7	14.0	15.1	19.1	18.4	17.6	15.4	17.7	14.8	14.7	15.4
4,000 - 4,999	15.1	16.2	15.2	15.5	15.5	16.2	15.0	15.3	16.5	16.9	15.8
5,000 - 5,999	11.0	17.0	12.1	10.3	10.8	9.2	13.5	8.0	13.0	11.9	12.5
6,000 - 9,999	16.9	15.1	16.9	11.9	12.5	6.9	16.1	6.5	13.6	12.5	13.8
10,000 and over	5.8	2.2	6.6	4.4	4.5	2.2	3.3	1.7	2.8	2.3	2.9
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1963											
under 1,999	20.5	21.5	20.5	21.3	21.3	25.3	20.9	33.7	22.0	26.3	22.9
2,000 - 2,999	13.9	12.7	13.3	17.2	16.7	19.5	15.6	20.1	15.8	16.4	16.4
3,000 - 3,999	14.3	13.5	14.5	18.2	17.6	17.6	14.7	17.9	14.2	13.7	14.8
4,000 - 4,999	15.2	14.4	14.4	15.4	15.3	16.5	14.9	14.6	16.6	15.9	15.5
5,000 - 5,999	11.8	16.5	12.2	10.3	10.8	10.5	14.2	6.3	13.3	12.6	13.1
6,000 - 9,999	18.1	19.0	19.1	12.7	13.5	7.9	16.1	5.9	14.9	12.9	14.1
10,000 and over	6.2	2.4	6.0	4.9	4.8	2.7	3.6	1.5	3.2	2.2	3.2
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

INCOME DISTRIBUTION BY ECONOMIC REGIONS, COUNTIES AND DISTRICTS, 1960-1963

(Per cent of total income recipients)

Income Class $	EASTERN ONTARIO											
	A — Ottawa Valley					B — Upper St. Lawrence						
	Carleton	Lanark	Prescott	Renfrew	Russell	Dundas	Frontenac	Glengarry	Grenville	Leeds	Stormont	Region
1960												
under 1,999	23.7	32.4	36.4	33.4	38.7	36.4	31.9	45.3	32.1	30.1	31.0	28.0
2,000 - 2,999	19.4	29.3	20.2	20.4	23.9	22.1	19.9	21.1	21.8	22.6	16.5	20.2
3,000 - 3,999	19.8	18.0	13.6	20.6	17.5	16.9	16.6	22.2	16.2	21.6	16.3	18.9
4,000 - 4,999	14.6	8.8	14.9	12.0	15.0	11.2	15.2	3.4	13.2	13.9	19.7	14.3
5,000 - 5,999	8.2	4.9	7.5	6.0	2.4	5.7	7.1	5.1	10.2	6.1	8.7	7.5
6,000 - 9,999	10.4	5.4	5.5	5.9	1.9	6.6	6.9	1.0	5.3	4.4	6.4	8.2
10,000 and over	3.9	1.2	1.9	1.7	0.6	1.1	2.4	1.9	1.2	1.3	1.4	2.9
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1961												
under 1,999	23.1	35.5	34.4	33.8	34.3	38.5	28.5	32.2	34.3	29.9	32.2	27.4
2,000 - 2,999	18.2	24.1	17.9	19.5	23.0	20.0	19.1	18.2	16.4	19.5	16.5	18.8
3,000 - 3,999	17.9	16.4	15.9	18.2	24.2	18.0	17.4	21.4	20.4	19.7	17.6	18.0
4,000 - 4,999	15.2	10.7	14.0	12.3	9.5	9.4	15.0	13.7	11.2	15.5	17.0	14.5
5,000 - 5,999	8.1	5.1	7.6	6.7	5.4	6.9	9.0	7.9	7.1	6.9	8.4	7.8
6,000 - 9,999	12.9	6.5	8.7	7.2	2.9	5.5	8.3	4.3	8.6	6.3	6.8	10.1
10,000 and over	4.6	1.7	1.5	2.3	0.7	1.7	2.7	2.3	2.0	2.2	1.5	3.4
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1962												
under 1,999	22.0	29.9	38.3	30.0	32.9	33.8	28.0	35.9	30.7	30.1	29.3	25.9
2,000 - 2,999	17.8	24.5	19.8	20.9	23.3	22.6	17.8	17.7	19.0	21.5	18.0	18.9
3,000 - 3,999	18.5	20.0	12.5	18.8	20.3	21.5	18.0	26.1	19.2	17.4	14.2	18.2
4,000 - 4,999	14.2	11.8	12.6	13.6	12.4	10.9	14.3	8.3	12.1	14.4	19.8	14.2
5,000 - 5,999	8.6	6.0	6.2	6.9	7.6	2.3	9.4	6.3	9.1	8.0	8.5	8.2
6,000 - 9,999	13.6	5.8	8.2	6.9	1.9	7.9	8.7	4.7	8.0	6.6	7.8	10.6
10,000 and over	5.3	2.0	2.4	2.9	1.6	1.0	3.8	1.0	1.9	2.0	2.4	4.0
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1963												
under 1,999	22.0	31.0	35.1	33.5	32.1	33.9	27.9	42.7	31.6	28.0	30.0	26.2
2,000 - 2,999	16.3	18.3	14.8	17.8	23.3	20.0	16.7	22.9	20.6	18.3	15.8	17.0
3,000 - 3,999	16.8	20.6	19.2	17.6	17.9	17.4	17.5	15.4	18.0	18.9	15.5	17.3
4,000 - 4,999	15.2	13.0	11.9	14.0	13.7	13.9	14.6	10.6	11.3	17.5	15.9	14.8
5,000 - 5,999	10.4	4.9	7.8	6.8	7.3	4.9	10.0	4.4	8.3	8.8	12.5	9.5
6,000 - 9,999	13.6	10.0	8.2	7.6	4.9	7.5	10.1	3.0	9.4	6.7	8.5	11.1
10,000 and over	5.7	2.2	3.0	2.7	0.8	2.4	3.2	1.0	0.8	1.8	1.8	4.1
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

INCOME DISTRIBUTION BY ECONOMIC REGIONS, COUNTIES AND DISTRICTS, 1960-1963

(Per cent of total income recipients)

Income Class $	NORTHEASTERN ONTARIO						
	A — Clay Belt			B — Nickel Range		C — Sault	
	Cochrane	Nipissing	Timiskaming	Manitoulin	Sudbury	Algoma	Region
1960							
under 1,999	26.7	31.5	26.3	42.6	21.8	22.7	24.9
2,000 - 2,999	15.7	20.6	18.9	19.1	13.4	12.7	15.2
3,000 - 3,999	23.5	17.2	24.9	20.9	12.1	13.3	16.5
4,000 - 4,999	15.9	13.9	15.0	10.7	23.0	16.2	17.9
5,000 - 5,999	8.9	7.7	7.6	6.1	17.1	15.3	12.9
6,000 - 9,999	7.9	7.3	6.0	0.0	11.1	17.7	11.0
10,000 and over	1.4	1.8	1.3	0.6	1.5	2.1	1.6
TOTAL	100.0	100.0	100.0	100.00	100.0	100.0	100.0
1961							
under 1,999	27.6	32.1	29.1	48.2	21.7	25.3	26.0
2,000 - 2,999	16.1	17.9	15.7	15.0	12.5	12.5	14.2
3,000 - 3,999	20.6	15.6	26.3	18.1	11.2	13.2	15.5
4,000 - 4,999	15.9	14.7	14.1	7.9	21.9	12.9	16.9
5,000 - 5,999	8.2	8.9	6.8	1.2	19.3	14.4	13.3
6,000 - 9,999	10.0	8.6	6.0	8.6	11.5	19.7	12.2
10,000 and over	1.6	2.2	2.0	1.0	1.9	2.0	1.9
TOTAL	100.0	100.0	100.0	100.00	100.0	100.0	100.0
1962							
under 1,999	26.3	29.2	30.4	45.9	21.9	22.3	24.9
2,000 - 2,999	15.4	17.0	16.5	17.1	13.2	12.6	14.3
3,000 - 3,999	17.3	17.7	23.0	21.3	13.3	12.9	15.6
4,000 - 4,999	16.8	15.0	15.3	7.3	18.8	14.0	16.3
5,000 - 5,999	11.1	8.8	6.3	5.1	18.0	14.1	13.3
6,000 - 9,999	11.2	9.8	7.0	2.6	12.8	21.9	13.6
10,000 and over	1.9	2.5	1.5	0.7	2.0	2.2	2.0
TOTAL	100.0	100.0	100.0	100.00	100.0	100.0	100.0
1963							
under 1,999	27.7	29.5	30.0	41.6	22.8	23.3	25.8
2,000 - 2,999	15.7	16.5	15.6	21.8	13.2	12.2	14.2
3,000 - 3,999	17.5	15.8	24.1	15.8	12.4	11.2	14.7
4,000 - 4,999	16.2	14.9	14.6	6.4	19.0	12.1	15.7
5,000 - 5,999	9.5	10.2	6.8	8.5	18.2	14.2	13.2
6,000 - 9,999	11.6	11.2	7.0	5.1	12.5	24.0	14.3
10,000 and over	1.8	1.9	1.9	0.8	1.9	3.0	2.1
TOTAL	100.0	100.0	100.0	100.00	100.0	100.0	100.0

INCOME DISTRIBUTION BY ECONOMIC REGIONS, COUNTIES AND DISTRICTS, 1960-1963

(Per cent of total income recipients)

Income Class $	LAKE ST. CLAIR				LAKE ERIE				
	A — Border		B — Lambton						
	Essex	Kent	Lambton	Region	Elgin	Middlesex	Norfolk	Oxford	Region
1960									
under 1,999	27.6	34.4	27.5	28.9	31.1	26.6	38.4	31.1	29.2
2,000 - 2,999	17.4	18.3	15.5	17.2	22.5	22.2	21.0	21.4	22.0
3,000 - 3,999	16.7	18.5	14.1	16.5	20.2	20.3	16.8	21.7	20.1
4,000 - 4,999	17.9	13.1	14.6	16.2	9.7	13.9	10.0	14.1	13.0
5,000 - 5,999	9.3	7.1	11.5	9.3	6.3	6.8	4.7	5.0	6.2
6,000 - 9,999	9.1	6.6	14.2	9.8	8.5	7.4	6.4	4.6	7.0
10,000 and over	2.0	2.0	2.6	2.1	1.7	2.8	2.7	2.1	2.5
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1961									
under 1,999	28.7	35.6	27.1	29.7	31.2	26.1	35.2	29.6	28.3
2,000 - 2,999	16.3	20.0	16.0	17.0	21.7	21.4	18.6	22.3	21.3
3,000 - 3,999	15.1	17.4	13.8	15.2	20.5	19.3	17.7	20.3	19.4
4,000 - 4,999	18.3	11.8	13.0	15.9	12.2	14.5	9.9	13.8	13.6
5,000 - 5,999	9.7	6.9	11.1	9.5	5.5	7.4	5.8	6.1	6.8
6,000 - 9,999	9.5	5.8	16.2	10.2	7.1	8.6	8.7	5.4	7.9
10,000 and over	2.4	2.5	2.8	2.5	1.8	2.7	4.1	2.5	2.7
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1962									
under 1,999	27.8	30.2	24.7	27.6	30.3	24.7	36.1	30.6	27.5
2,000 - 2,999	15.2	19.3	16.6	16.3	21.4	19.5	19.3	18.1	19.6
3,000 - 3,999	14.7	17.5	13.2	14.9	21.1	18.1	18.3	19.6	18.8
4,000 - 4,999	17.7	14.7	14.1	16.3	11.1	15.3	11.6	16.3	14.5
5,000 - 5,999	10.5	8.3	10.7	10.1	6.8	9.1	5.9	7.2	8.2
6,000 - 9,999	11.2	7.3	17.7	11.9	7.8	10.2	6.6	6.1	8.8
10,000 and over	2.9	2.7	3.0	2.9	1.5	3.1	2.2	2.1	2.6
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1963									
under 1,999	26.5	30.3	25.2	27.0	28.8	25.3	34.3	30.3	27.5
2,000 - 2,999	15.4	18.3	16.8	16.3	20.7	19.2	19.8	19.0	19.5
3,000 - 3,999	12.8	16.7	13.9	13.8	19.6	17.7	14.5	19.6	18.0
4,000 - 4,999	14.6	12.2	12.1	13.6	12.5	14.9	13.7	15.1	14.5
5,000 - 5,999	13.4	10.0	9.9	11.9	6.8	9.3	5.9	7.2	8.2
6,000 - 9,999	14.3	9.8	18.3	14.3	9.0	10.5	8.5	6.5	9.4
10,000 and over	3.0	2.7	3.8	3.1	2.6	3.1	3.3	2.3	2.9
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

INCOME DISTRIBUTION BY ECONOMIC REGIONS, COUNTIES AND DISTRICTS, 1960-1963

(Per cent of total income recipients)

Income Class $	MID-WESTERN ONTARIO					LAKEHEAD-NORTHWESTERN ONTARIO			
	Huron	Perth	Waterloo	Wellington	Region	Kenora	Rainy River	Thunder Bay	Region
1960									
under 1,999	40.9	32.5	26.4	30.2	29.5	28.5	28.3	25.3	26.3
2,000 - 2,999	24.7	22.8	20.8	18.2	20.9	16.3	18.3	16.5	16.7
3,000 - 3,999	15.7	21.4	19.7	22.7	20.2	18.9	13.2	18.8	18.3
4,000 - 4,999	8.5	12.5	17.2	14.3	15.1	16.4	17.4	16.4	16.5
5,000 - 5,999	4.3	4.6	7.5	6.3	6.5	9.0	12.0	10.8	10.5
6,000 - 9,999	4.6	4.4	5.8	6.2	5.6	9.6	8.5	10.0	9.7
10,000 and over	1.3	1.8	2.6	2.1	2.2	1.3	2.3	2.2	2.0
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1961									
under 1,999	41.7	33.8	24.8	32.2	29.4	28.0	27.8	25.7	26.4
2,000 - 2,999	20.9	21.2	21.2	21.0	21.1	17.2	15.1	17.0	16.8
3,000 - 3,999	17.7	19.4	19.3	19.0	19.1	14.9	14.5	15.8	15.5
4,000 - 4,999	8.3	13.8	16.2	13.7	14.5	17.4	17.5	17.3	17.4
5,000 - 5,999	5.1	4.9	8.8	4.9	7.1	10.5	13.7	11.2	11.3
6,000 - 9,999	4.6	4.8	7.3	6.8	6.5	10.5	10.1	11.0	10.8
10,000 and over	1.7	2.1	2.4	2.4	2.3	1.5	1.3	2.0	1.8
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1962									
under 1,999	38.2	31.1	23.6	28.6	27.2	29.1	30.4	24.4	26.0
2,000 - 2,999	21.6	21.6	19.5	18.2	19.7	16.3	13.3	15.2	15.2
3,000 - 3,999	18.0	19.1	19.3	21.2	19.5	15.6	13.8	18.2	17.2
4,000 - 4,999	10.3	13.4	16.4	15.5	15.2	15.7	17.5	17.4	17.1
5,000 - 5,999	5.3	6.6	10.2	6.9	8.5	9.9	9.8	10.3	10.1
6,000 - 9,999	4.6	6.2	8.3	7.3	7.5	11.7	12.9	12.6	12.5
10,000 and over	2.0	2.0	2.7	2.3	2.4	1.7	2.3	1.9	1.9
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1963									
under 1,999	36.5	31.0	23.3	27.8	26.6	27.0	28.6	25.0	25.7
2,000 - 2,999	22.0	20.7	19.2	19.8	19.8	15.4	14.0	16.9	16.3
3,000 - 3,999	19.2	19.4	18.2	17.7	18.4	14.7	15.9	15.0	15.0
4,000 - 4,999	9.9	13.4	15.8	16.2	15.0	17.3	14.5	16.5	16.5
5,000 - 5,999	5.6	6.8	10.6	8.2	9.0	13.1	12.0	11.6	12.0
6,000 - 9,999	4.8	6.0	10.0	7.9	8.5	11.0	12.0	13.0	12.5
10,000 and over	2.0	2.7	2.9	2.4	2.7	1.5	3.0	2.0	2.0
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

INCOME DISTRIBUTION BY ECONOMIC REGIONS, COUNTIES AND DISTRICTS, 1960-1963

(Per cent of total income recipients)

Income Class $	LAKE ONTARIO								
	Durham	Haliburton	Hastings	Lennox & Addington	Northumberland	Peterborough	Prince Edward	Victoria	Region
1960									
under 1,999	25.6	43.2	31.3	37.8	34.6	27.3	37.0	39.9	31.6
2,000 - 2,999	18.9	23.9	19.4	18.8	21.1	17.2	26.8	23.6	19.7
3,000 - 3,999	21.2	13.9	20.3	17.0	22.5	18.0	16.0	18.1	19.3
4,000 - 4,999	20.1	8.1	13.3	13.7	13.0	15.6	9.0	9.6	14.0
5,000 - 5,999	8.1	4.0	5.6	7.6	4.7	9.9	5.3	4.3	6.9
6,000 - 9,999	4.4	5.9	7.9	3.9	2.7	9.9	4.8	3.4	6.7
10,000 and over	1.7	1.0	2.2	1.2	1.4	2.1	1.1	1.1	1.8
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1961									
under 1,999	27.0	39.6	30.7	38.8	32.7	25.7	36.9	38.8	30.9
2,000 - 2,999	14.8	20.6	19.3	19.0	18.7	15.8	22.5	20.6	18.1
3,000 - 3,999	20.2	15.3	19.0	17.3	20.2	18.0	16.6	18.9	18.7
4,000 - 4,999	21.1	7.5	13.4	13.3	14.7	17.6	10.5	11.0	15.1
5,000 - 5,999	9.1	10.7	8.6	6.7	5.3	10.6	6.8	3.8	8.2
6,000 - 9,999	6.0	5.3	7.2	3.2	7.0	10.0	4.4	5.3	7.1
10,000 and over	1.8	1.0	1.8	1.7	1.4	2.3	2.3	1.6	1.9
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1962									
under 1,999	26.1	35.0	28.5	32.2	31.0	25.0	35.6	31.5	28.7
2,000 - 2,999	14.0	25.9	20.2	17.0	18.6	16.5	20.8	18.4	18.2
3,000 - 3,999	17.2	15.7	19.2	17.8	24.0	15.6	16.4	23.8	18.7
4,000 - 4,999	16.1	9.4	13.4	15.6	11.6	14.4	11.2	12.2	13.5
5,000 - 5,999	15.1	4.6	8.3	8.9	6.9	11.6	6.8	6.4	9.4
6,000 - 9,999	9.6	8.3	8.1	7.2	6.2	14.3	6.5	5.6	9.3
10,000 and over	1.9	1.1	2.3	1.3	1.7	2.6	2.7	2.1	2.2
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1963									
under 1,999	24.1	36.8	31.6	35.3	26.8	23.5	36.8	34.7	28.9
2,000 - 2,999	15.4	19.6	17.8	17.6	18.1	15.4	20.2	19.5	17.2
3,000 - 3,999	15.2	20.9	17.8	18.7	23.6	15.3	17.7	16.1	17.5
4,000 - 4,999	14.7	11.4	12.7	13.3	14.2	14.8	12.0	15.8	13.9
5,000 - 5,909	15.4	3.1	8.4	8.8	9.0	12.9	5.8	7.1	10.1
6,000 - 9,999	13.4	6.1	9.4	4.6	6.6	15.1	5.5	5.7	10.2
10,000 and over	1.8	2.1	2.3	1.7	1.7	3.0	2.0	1.1	2.2
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

INCOME DISTRIBUTION BY ECONOMIC REGIONS, COUNTIES AND DISTRICTS, 1960-1963

(Per cent of total income recipients)

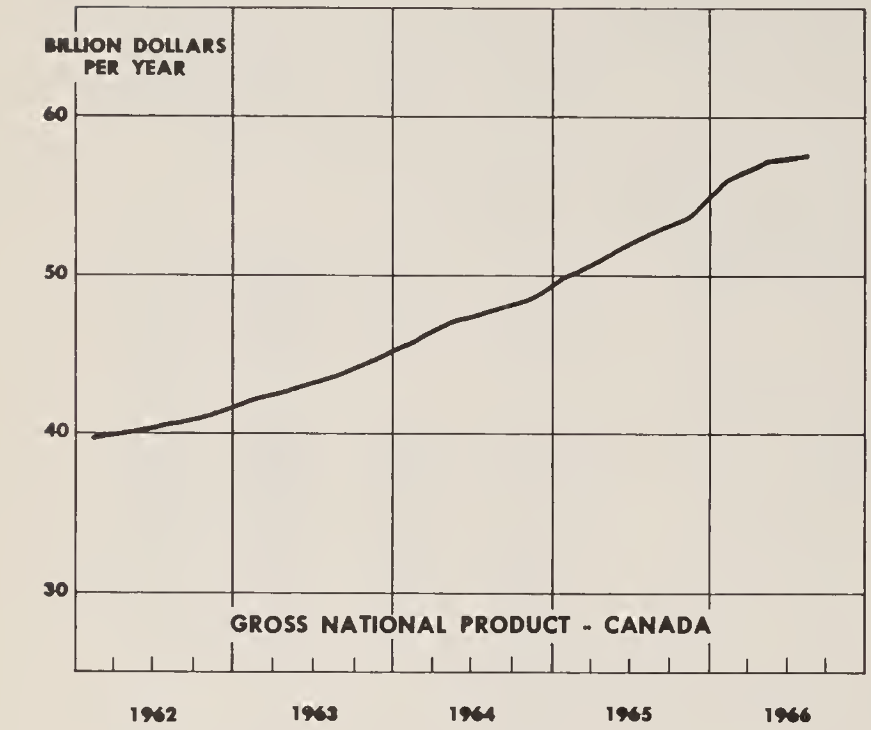
Income Class $	GEORGIAN BAY						
	A — Blue Water				B — Highlands		
	Bruce	Dufferin	Grey	Simcoe	Muskoka	Parry Sound	Region
1960							
under 1,999	41.7	38.0	38.3	34.9	36.1	38.9	37.1
2,000 - 2,999	26.8	19.8	20.3	22.1	20.9	21.0	22.0
3,000 - 3,999	14.8	17.8	19.8	21.9	17.7	18.9	19.7
4,000 - 4,999	7.5	10.8	11.3	10.5	10.7	11.1	10.4
5,000 - 5,999	4.5	6.5	3.9	4.5	6.1	4.4	4.6
6,000 - 9,999	3.6	6.0	4.9	4.0	7.4	4.6	4.6
10,000 and over	1.1	1.1	1.5	2.1	1.1	1.1	1.6
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1961							
under 1,999	41.3	42.7	34.0	33.8	34.5	37.8	35.6
2,000 - 2,999	21.2	18.2	22.6	21.3	23.8	22.2	21.7
3,000 - 3,999	16.1	21.8	19.4	20.5	17.4	16.2	19.1
4,000 - 4,999	8.8	8.4	9.4	12.0	11.7	11.5	10.9
5,000 - 5,999	5.0	3.1	5.4	5.7	6.0	5.4	5.5
6,000 - 9,999	5.9	4.6	7.2	4.9	6.0	5.9	5.6
10,000 and over	1.7	1.2	2.0	1.8	0.6	1.0	1.6
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1962							
under 1,999	40.2	35.6	33.8	32.3	35.9	37.9	34.6
2,000 - 2,999	22.0	17.6	22.2	19.3	19.1	19.9	20.2
3,000 - 3,999	18.3	15.4	19.7	19.7	20.2	18.2	19.2
4,000 - 4,999	8.1	11.1	11.1	12.7	10.5	12.2	11.5
5,000 - 5,999	4.3	8.5	5.2	7.0	5.5	5.0	6.0
6,000 - 9,999	5.7	9.9	6.2	7.2	6.2	5.6	6.7
10,000 and over	1.4	1.9	1.8	1.8	2.6	1.2	1.8
TOTAL	100.00	100.0	100.0	100.0	100.0	100.0	100.0
1963							
under 1,999	36.7	37.5	35.8	32.4	35.3	39.2	34.7
2,000 - 2,999	23.7	21.2	20.8	18.2	20.9	17.9	19.7
3,000 - 3,999	19.0	19.0	17.7	18.6	18.2	16.6	18.3
4,000 - 4,999	7.2	7.4	13.0	14.1	11.9	10.6	12.2
5,000 - 5,999	5.7	7.0	4.7	7.2	7.0	6.0	6.4
6,000 - 9,999	6.0	5.6	5.9	7.6	6.1	8.5	6.9
10,000 and over	1.7	2.3	2.1	1.9	0.6	1.2	1.8
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0

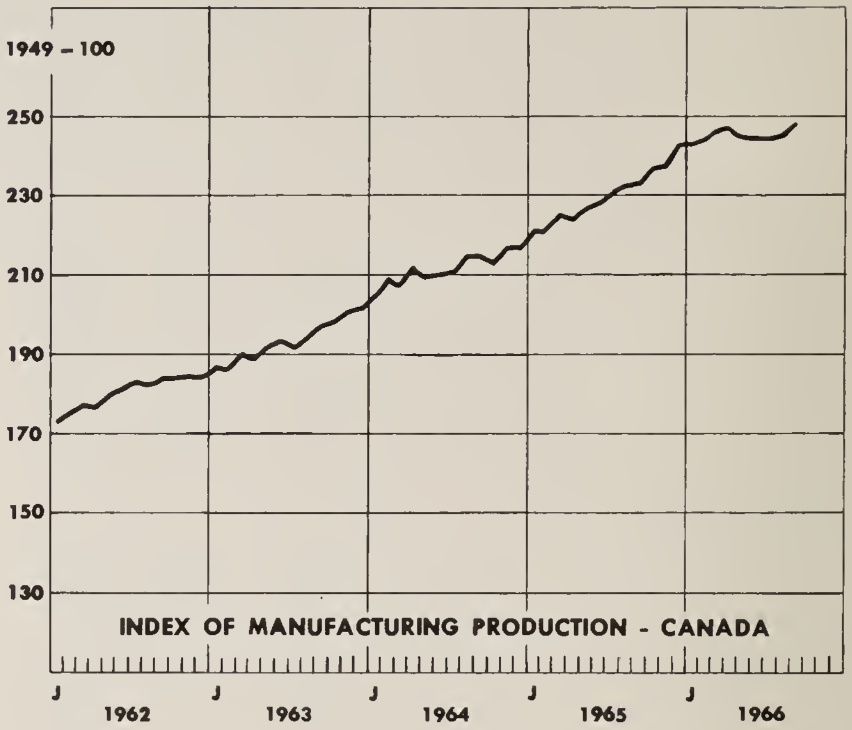
APPENDIX B

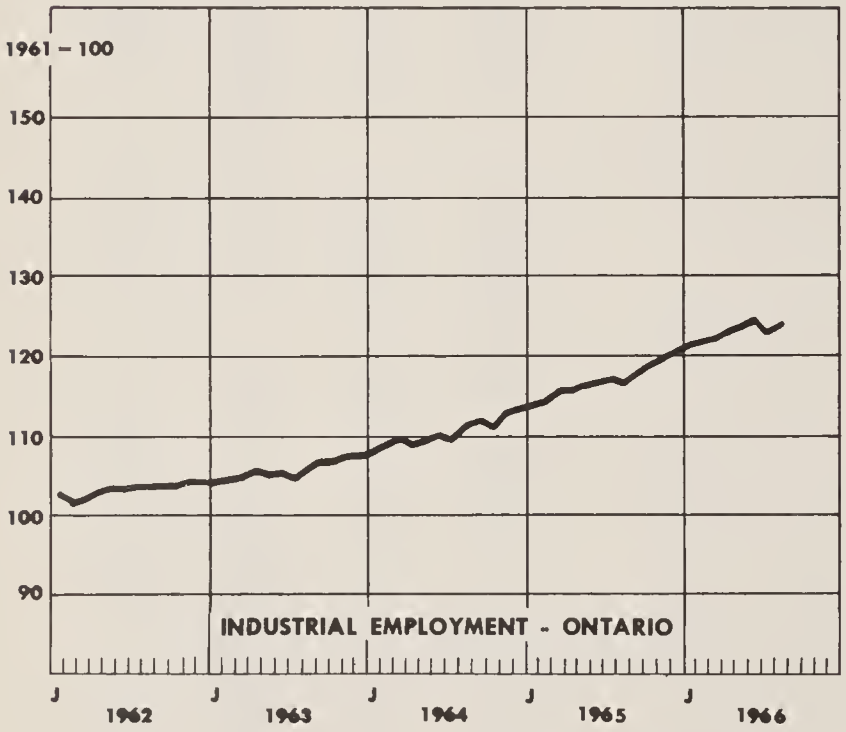
AVERAGE ANNUAL INCOME BY REGIONS, COUNTIES AND DISTRICTS, 1960-1963

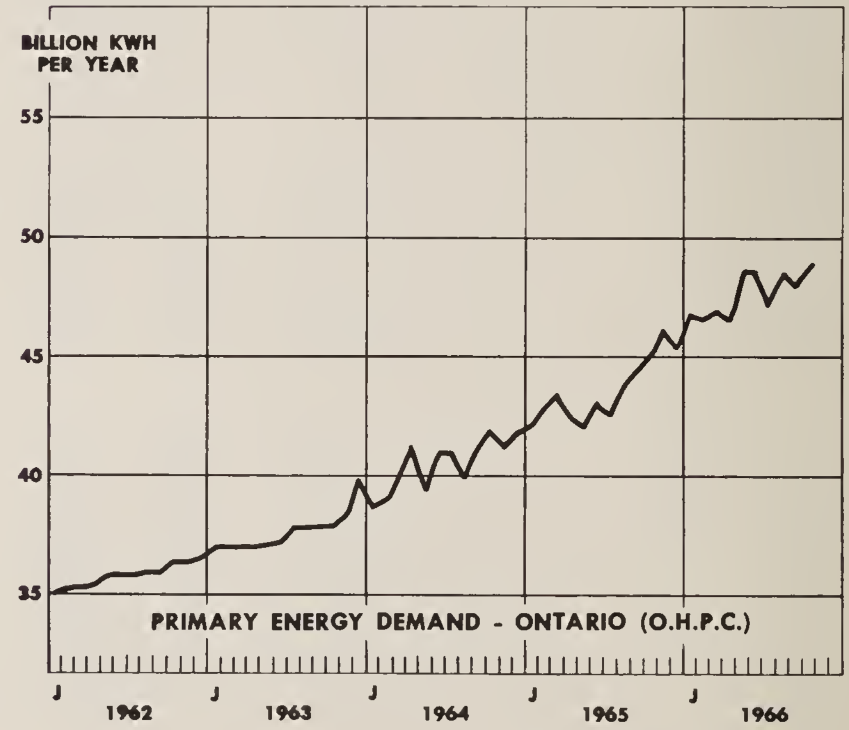
	1960	*1961*	*1962*	*1963*
	$			
METROPOLITAN				
Halton	4,266	4,276	4,509	4,676
Ontario	3,890	3,872	4,128	4,351
Peel	4,286	4,517	4,707	4,684
York	3,938	4,092	4,199	4,319
Region	3,961	4,106	4,229	4,352
NIAGARA				
A — Burlington				
Brant	3,391	3,499	3,509	3,739
Wentworth	3,932	4,004	4,223	4,332
B — Niagara				
Haldimand	3,090	3,295	3,312	3,241
Lincoln	3,700	3,807	3,999	4,172
Welland	3,628	3,758	3,847	3,902
Region	3,756	3,851	4,014	4,131
EASTERN ONTARIO				
A — Ottawa Valley				
Carleton	3,932	4,118	4,205	4,354
Lanark	2,946	3,068	3,128	3,465
Prescott	3,050	3,261	3,212	3,477
Renfrew	3,175	3,258	3,372	3,364
Russell	2,803	2,819	2,973	3,033
B — Upper St. Lawrence				
Dundas	3,043	2,947	2,957	3,171
Frontenac	3,323	3,603	3,656	3,730
Glengarry	2,401	3,211	3,052	2,724
Grenville	3,192	3,325	3,320	3,261
Leeds	3,177	3,369	3,298	3,489
Stormont	3,361	3,348	3,497	3,527
Region	3,572	3,742	3,813	3,936
NORTHEASTERN ONTARIO				
A — Clay Belt				
Cochrane	3,551	3,561	3,688	3,671
Nipissing	3,275	3,408	3,558	3,602
Timiskaming	3,396	3,369	3,324	3,441
B — Nickel Range				
Manitoulin	2,558	2,710	2,437	2,759
Sudbury	3,999	4,061	4,046	4,056
C — Sault				
Algoma	4,130	4,090	4,232	4,413
Region	3,777	3,809	3,868	3,928
LAKE ST. CLAIR				
A — Border				
Essex	3,668	3,738	3,893	4,154
Kent	3,285	3,191	3,448	3,668
LAKE ST. CLAIR (Cont'd)				
B — Lambton				
Lambton	3,901	3,951	4,057	4,176
Region	3,646	3,676	3,840	4,060
LAKE ERIE				
Elgin	3,238	3,232	3,136	3,464
Middlesex	3,552	3,626	3,776	3,848
Norfolk	3,113	3,564	3,061	3,391
Oxford	3,226	3,362	3,334	3,407
Region	3,410	3,522	3,548	3,678
MID-WESTERN ONTARIO				
Huron	2,726	2,733	2,924	3,054
Perth	3,094	3,156	3,239	3,343
Waterloo	3,532	3,610	3,701	3,850
Wellington	3,325	3,254	3,390	3,522
Region	3,344	3,380	3,495	3,633
LAKE ONTARIO				
Durham	3,429	3,519	3,725	3,868
Haliburton	2,676	2,910	3,045	3,110
Hastings	3,362	3,368	3,414	3,480
Lennox and Addington	2,942	2,951	3,186	3,161
Northumberland	2,919	3,195	3,197	3,435
Peterborough	3,640	3,742	3,837	4,051
Prince Edward	2,927	3,015	3,151	3,173
Victoria	2,719	2,941	3,176	3,110
Region	3,279	3,372	3,474	3,594
LAKEHEAD-NORTHWESTERN ONTARIO				
Kenora	3,465	3,539	3,539	3,684
Rainy River	3,600	3,666	3,688	3,807
Thunder Bay	3,733	3,752	3,808	3,815
Region	3,662	3,701	3,741	3,787
GEORGIAN BAY				
A — Blue Water				
Bruce	2.576	2.860	2.845	2.972
Dufferin	3,007	2,685	3,247	3,116
Grey	2,903	3,119	3,161	3,092
Simcoe	3,000	3,102	3,234	3,315
B — Highlands				
Muskoka	3,004	2,973	3,102	2,996
Parry Sound	2,716	2,953	2,941	3,003
Region	2,901	3,031	3,132	3,164
ONTARIO	3,711	3,825	3,932	4,052

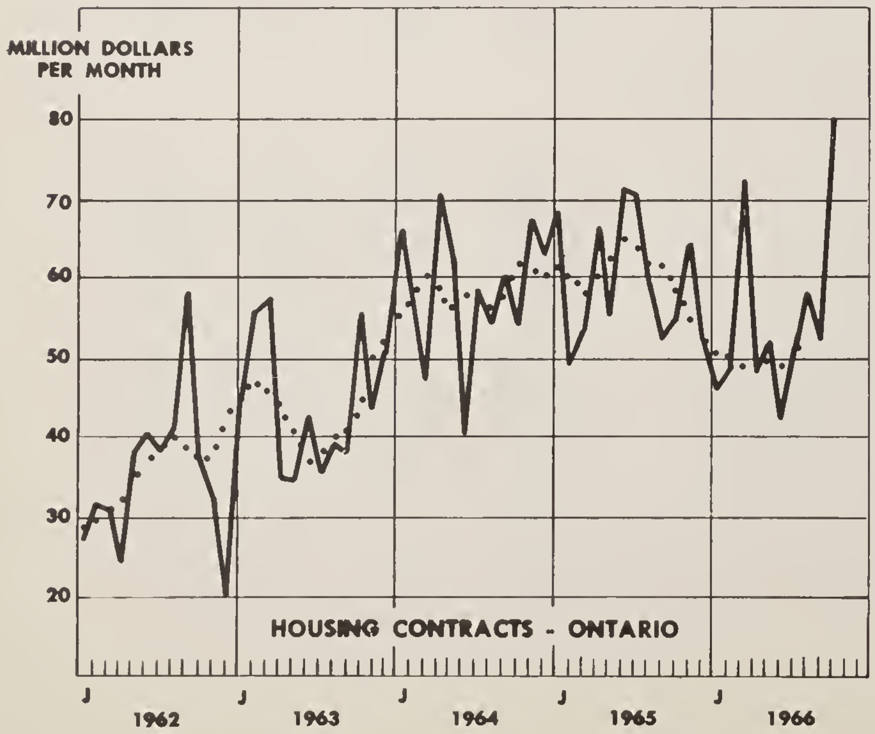
ECONOMIC INDICATORS–SEASONALLY ADJUSTED

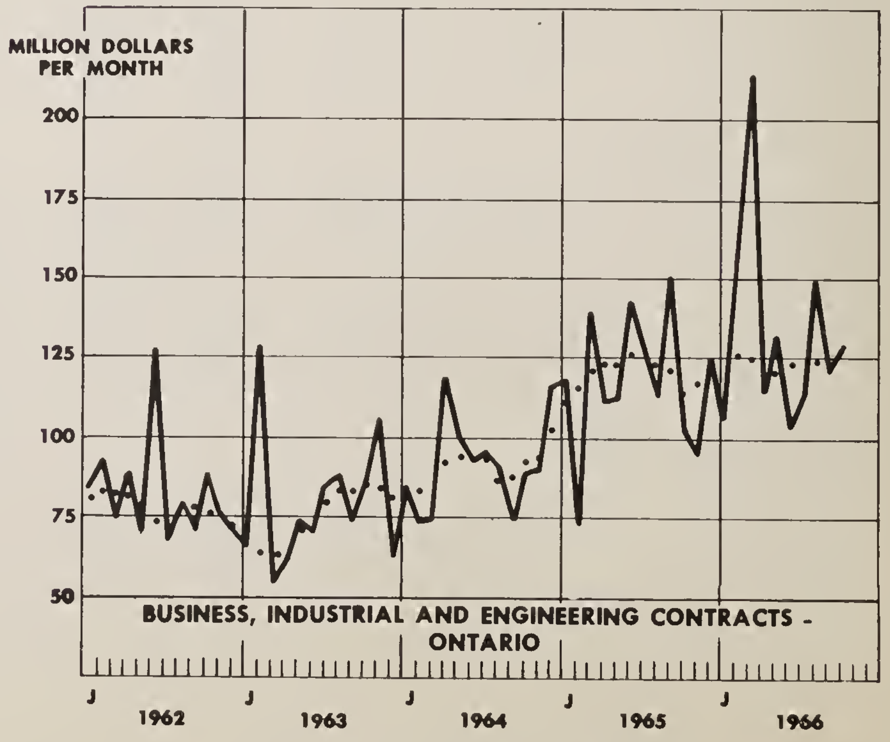

GROSS NATIONAL PRODUCT - CANADA


INDEX OF MANUFACTURING PRODUCTION - CANADA


INDUSTRIAL EMPLOYMENT - ONTARIO


PRIMARY ENERGY DEMAND - ONTARIO (O.H.P.C.)

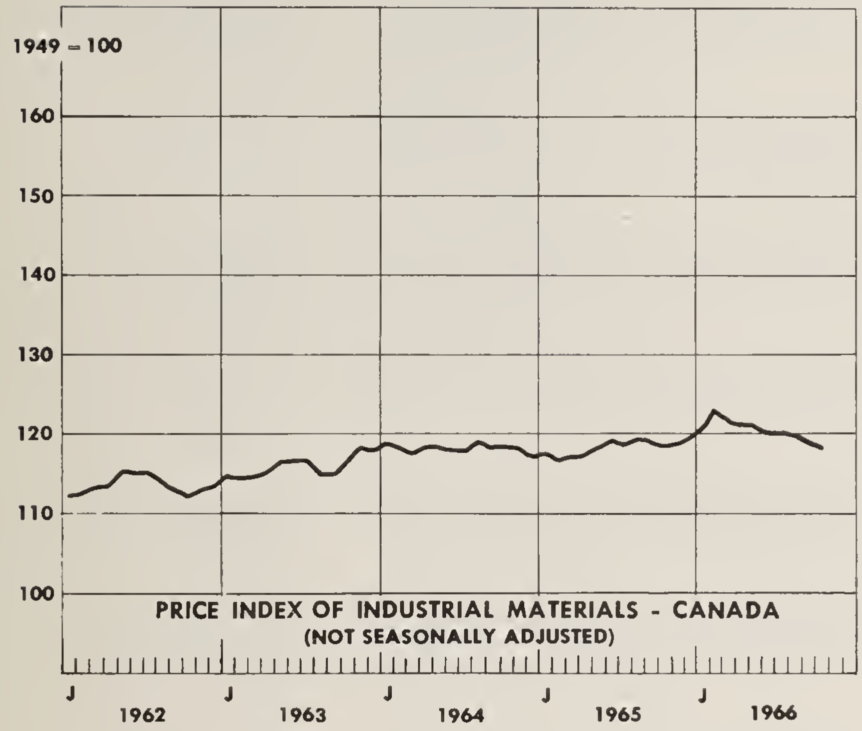

HOUSING CONTRACTS - ONTARIO

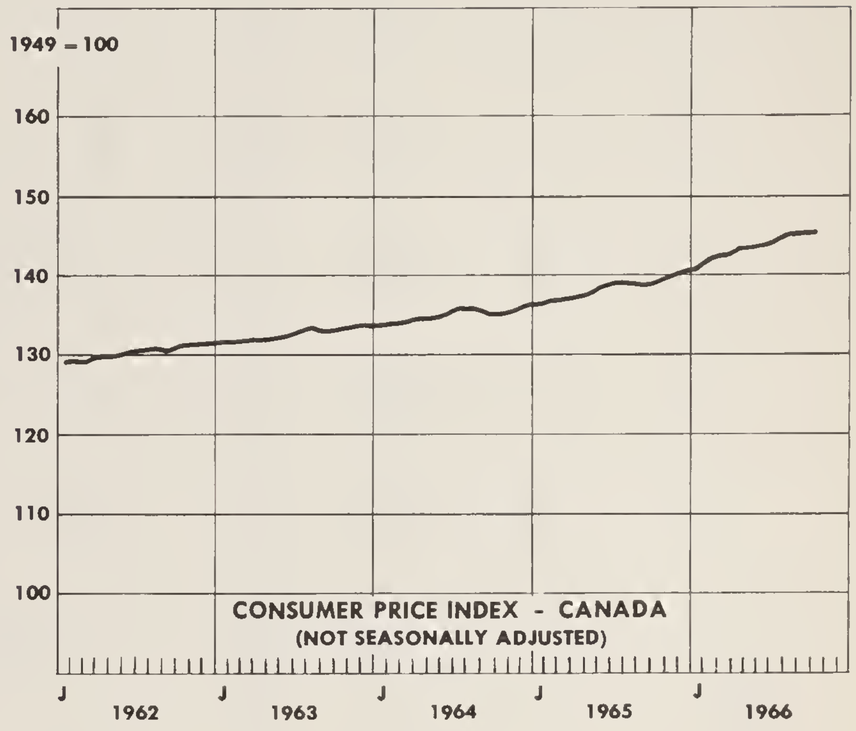

BUSINESS, INDUSTRIAL AND ENGINEERING CONTRACTS - ONTARIO

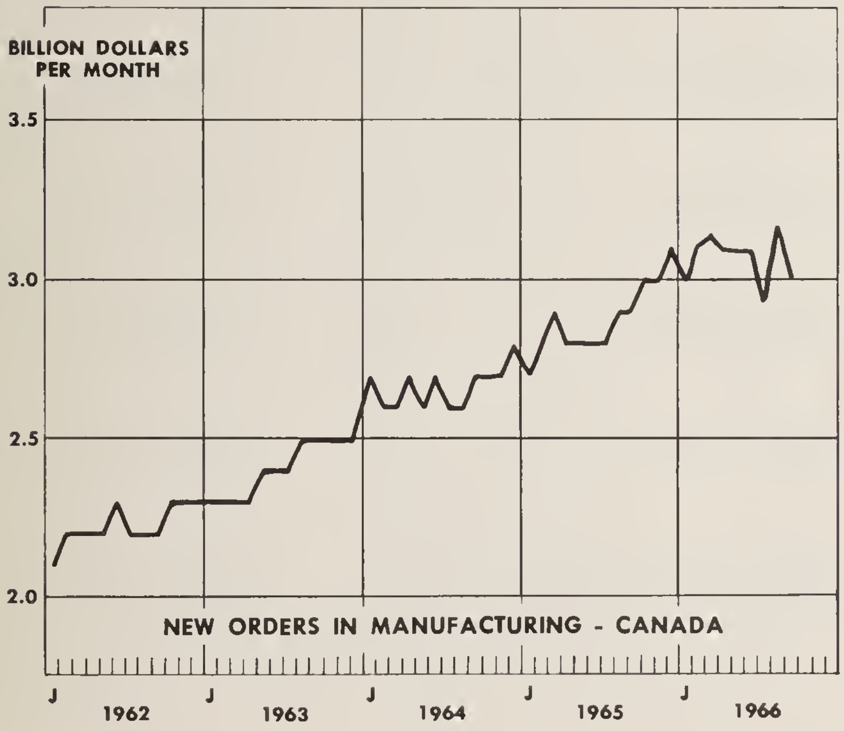
······· TREND CYCLE

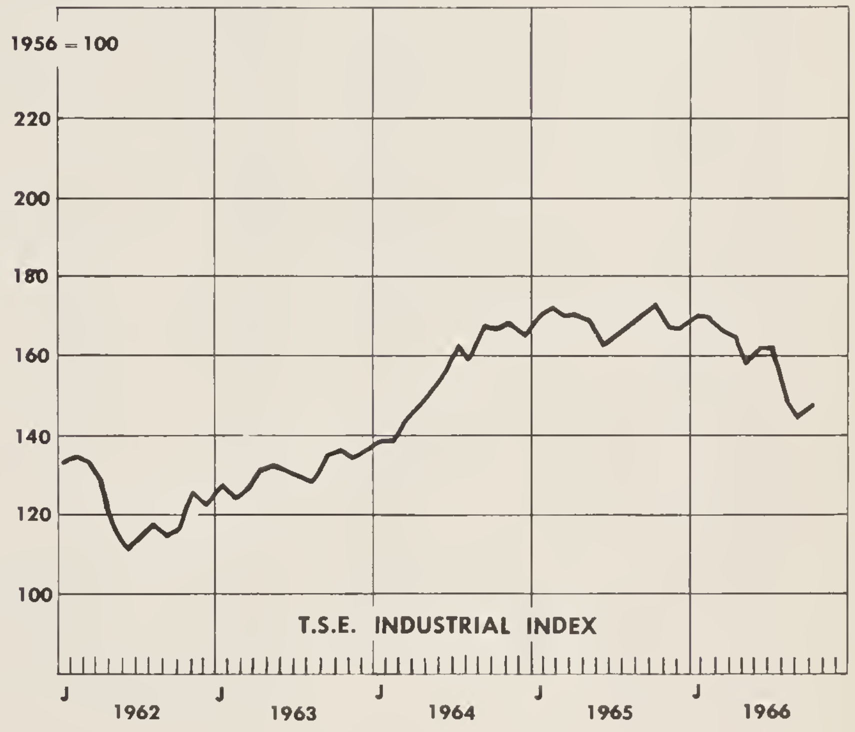
—— SEASONALLY ADJUSTED MONTHLY FIGURES

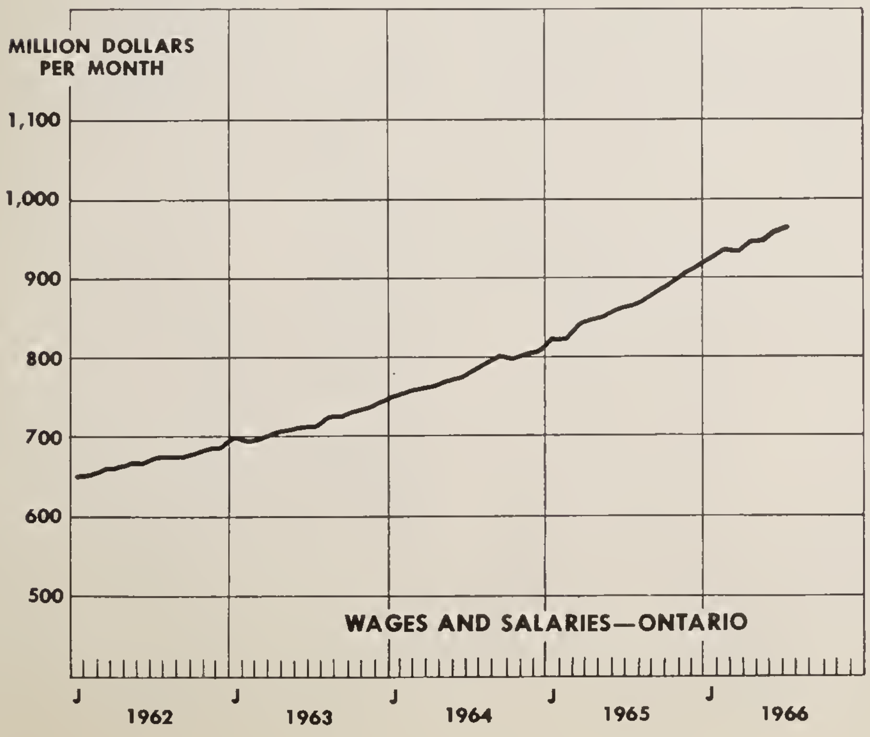
ECONOMIC INDICATORS—SEASONALLY ADJUSTED

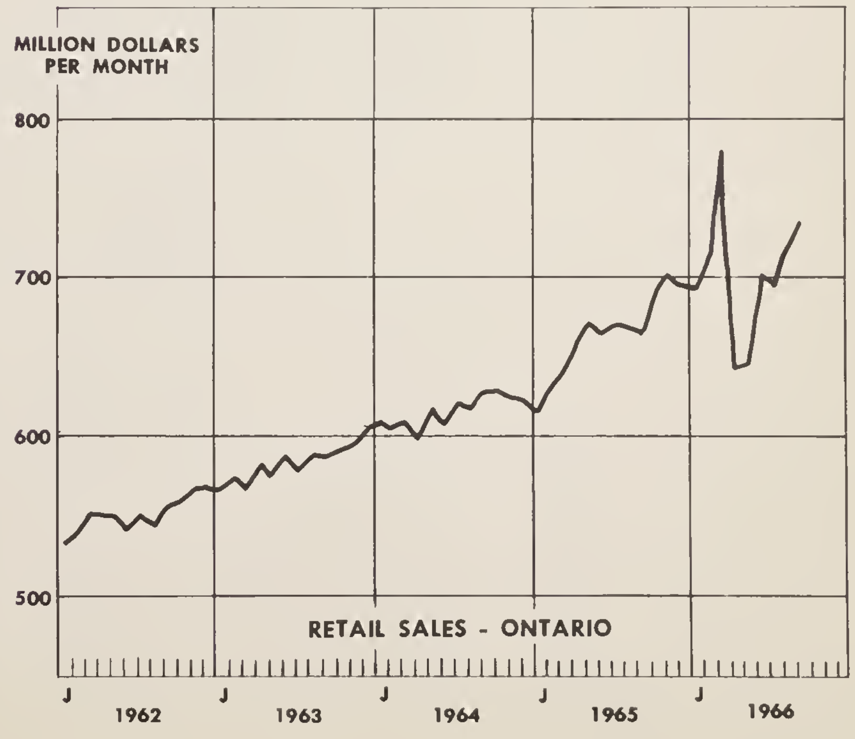












ONTARIO ECONOMIC INDICATORS - SEASONALLY ADJUSTED

(*Figures for Canada)

		1965				1966									
LEADING INDICATORS		Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.
Average Weekly Hours Worked in Manufacturing(1)	Number	40.9	41.1	41.2	42.0	41.0	41.4	41.1	40.9	40.5	40.5				
New Dwelling Unit Starts(1)	Number	4,680	3,878	4,752	4,714	5,237	4,519	4,400	3,757	4,287	3,619	3,460	3,233	3,756	3,903
New Orders in Manufacturing*	$ Million	2,897	3,005	3,014	3,103	2,996	3,123	3,141	3,092	3,088	3,086	2,927	3,167	3,007	3,119
Housing Contracts(1)	$ Million	52.3	54.8	64.7	52.2	46.0	48.9	72.4	48.6	52.4	42.7	51.5	58.3	52.4	80.5
Business, Industrial and Engineering Contracts(1)	$ Million	149.0	101.6	95.4	122.8	106.1	146.6	213.6	114.4	131.3	103.1	114.8	148.2	120.7	128.7
Money Supply*	$ Million	19,596	19,724	19,766	19,789	19,813	19,879	20,014	20,169	20,176	20,118	20,353	20,632	20,812	21,044
T.S.E. Industrial Index(1)	1956=100	170.2	172.4	168.9	168.8	169.7	169.1	166.4	164.1	158.9	162.2	162.5	150.0	144.0	147.2
COINCIDENTAL AND LAGGING INDICATORS															
New Dwelling Unit Completions(1)	Number	3,342	3,075	3,877	4,491	5,204	4,588	5,142	4,949	4,444	7,501	7,371	6,036	3,779	2,822
Average Hourly Earnings in Manufacturing(1)	$	2.27	2.29	2.29	2.28	2.30	2.32	2.33	2.33	2.33	2.35				
Gross National Product*	$ Million	52,704			53,760			56,176			57,336			57,740	
Cheques Cashed in Clearing Centres(1)	$ Million	4,330	4,326	4,380	4,500	4,668	4,485	4,513	4,537	4,417	4,485	4,568	4,516	4,756	
Retail Trade	$ Million	667	694	703	697	695	715	780	646	647	701	696	718	736	
Labour Force	000's	2,608	2,605	2,621	2,641	2,668	2,676	2,688	2,706	2,705	2,717	2,727	2,768	2,750	2,759
Employed	000's	2,541	2,556	2,562	2,582	2,605	2,615	2,626	2,651	2,639	2,645	2,643	2,679	2,667	2,693
Unemployed	000's	67	49	59	59	63	61	62	55	66	72	84	89	83	66
Unemployed as % of Labour Force	%	2.6	1.9	2.3	2.2	2.4	2.3	2.3	2.0	2.4	2.6	3.1	3.2	3.0	2.4
Wages and Salaries	$ Million	888	895	908	917	924	937	936	948	951	963	969			
Industrial Employment Index(1)	1961=100	117.6	118.3	119.2	120.2	120.7	121.3	121.8	122.8	123.4	124.5	122.5	123.9		
Total Industrial Production*	1949=100	260.2	261.6	264.0	268.6	268.9	271.5	273.8	274.1	274.0	273.3	270.8	274.0	275.7	
Total Manufacturing		233.7	237.1	237.6	242.5	243.3	244.6	246.8	247.2	245.5	245.3	244.8	245.8	248.3	
Non-Durables		227.1	230.2	229.1	234.7	235.5	236.8	240.4	240.3	239.7	240.2	240.2	240.4	239.5	
Durables		241.5	245.0	247.5	251.6	252.5	253.7	254.3	255.2	252.3	251.3	250.2	252.2	258.7	
Mining		383.7	362.2	377.8	385.0	372.7	387.1	390.4	393.5	397.8	391.5	376.3	389.6	383.1	
Electric Power and Gas Utilities		456.0	471.2	478.0	471.6	488.9	490.7	492.3	485.5	503.5	504.8	495.6	513.7	519.3	
Primary Energy Demand (Annual Rate)	BKWH	44.51	44.98	46.11	45.50	46.71	46.60	46.88	46.62	48.61	48.57	47.18	48.45	47.92	48.67
ECONOMIC INDICATORS NOT SEASONALLY ADJUSTED*															
Domestic Exports*	$ Million	701.0	772.2	898.0	796.7	722.9	674.5	768.7	753.2	910.0	834.5	833.2	925.2	898.6	890.1
Imports for Consumption*	$ Million	724.7	763.6	895.3	786.9	706.8	667.9	830.7	775.0	914.0	901.7	737.0	808.8	807.2	920.5
Foreign Exchange Reserves*	US $ Million	2,614	2,644	2,681	2,665	2,562	2,548	2,510	2,469	2,412	2,342	2,315	2,281	2,244	2,223
Price Index of Industrial Materials*	1935-39=100	260.4	259.3	259.4	261.3	265.4	268.1	264.6	264.7	264.2	263.0	262.4	260.6	258.9	257.8
Business Failures	Number	74	79	76	61	70	79	80	75	73	90	56	58	63	54
Business Failures - Liabilities	$ Million	9.1	2.7	3.4	3.8	3.4	7.0	4.7	10.0	5.5	6.5	2.5	7.9	2.9	2.7

(1) Revised Series

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ONTARIO ECONOMIC REVIEW

DEPARTMENT OF ECONOMICS AND DEVELOPMENT

Hon. Stanley J. Randall, Minister *Stuart W. Clarkson, Deputy Minister*

OFFICE OF THE CHIEF ECONOMIST

H. Ian Macdonald, Chief Economist

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THE ONTARIO ECONOMY

Toward the end of 1966 the economy showed signs of slack, with the seasonally adjusted Index of Industrial Production for November rising only 0.3 per cent from the preceding month. In November the Index was recorded at 279.1 (based on 1949 = 100). Most of the gain came from electric power and gas utilities which rose 2.5 per cent; manufacturing and mining rose only fractionally (0.1 per cent and 0.2 per cent respectively).

Both components of the utilities advanced, with electric power up more than two per cent, and gas up more than three per cent. In manufacturing the overall gain was due to increases in non-durables production, as durables declined fractionally. Eight out of 11 major groups in non-durables rose, ranging from marginal amounts to five per cent. Declines were recorded in the remaining leather products, foods and beverages, and products of petroleum and coal groups. In durables the gains in electrical apparatus and supplies (2.1 per cent), wood products (2.7 per cent) and transportation equipment (0.8 per cent) were offset by reductions in non-metallic mineral products (down 3.2 per cent), iron and steel products (down 1.7 per cent), and non-ferrous metal products (down 1.5 per cent). In mining the overall increase was due to a 3.7 per cent increase in fuel production that just more than offset declines in metal and non-metal production.

Based on a comparison of November figures for 1965 and 1966, there has been a 5.9 per cent increase in the overall Index of Industrial Production. Electric power and gas utilities have shown the greatest increase (9.9 per cent), followed by mining (6.7 per cent) and manufacturing (5.3 per cent). In the manufacturing index, non-durables at 5.5 per cent were slightly ahead of durables, which were up 5.1 per cent from the previous November.

In construction activity, November housing figures were not at all favourable – although this could in part to be attributed to the termination of the Winter House-Building Incentive Program. Actual starts in Ontario centres of 5,000 population and over were down 24 per cent from the previous year. Starts for the first 11 months of 1966, at 42,305, were down 23 per cent. Seasonally-adjusted housing contract awards in November – one of the leading indicators of activity in the coming months – were down considerably from the previous month. Combined with the reduced numbers of units under construction (38,758 on November 30, 1966 as opposed to 54,158 one year earlier), this would indicate that availability of housing will not show much improvement in the immediate future.

In other areas of construction activity, institutional and industrial contract awards in November were up 118 per cent and 27 per cent respectively from one year earlier; however this was countered by 52 per cent and 27 per cent declines in engineering and business contract awards. As a result total awards – including housing – were down 6.1 per cent from November, 1965.

LABOUR MOBILITY
An Annotated Bibliography

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FEDERAL-PROVINCIAL CONFERENCE
A BRIEF REPORT

During the last full week of October, 1966, provincial and federal representatives met in Ottawa to discuss federal-provincial arrangements for the period beginning April 1, 1967. For two days the Tax Structure Committee discussed a new equalization formula and federal-provincial tax- and cost-sharing arrangements. During most of the remaining time Prime Minister Pearson, the Ministers of Finance and Manpower and Immigration and the Secretary of State met with provincial premiers, prime ministers and education ministers to consider financial assistance to technical and vocational training and post-secondary educational institutions. On the last day the conference concluded with a plenary session of premiers and prime ministers.

Equalization Formula

The objective of equalization is to allow the governments of poorer provinces to provide some minimum level of services to their residents. Minimum has been defined by the federal government as being equal to the national average.

There are two broad reasons why a provincial government has a relatively low level of revenue and hence why the residents of that province may not receive this minimum level of services. First, the province may have relatively large numbers of residents in lower income brackets. Secondly, it may be unwilling to tax its residents to the same degree as other provincial governments tax their residents; that is, it may not make an adequate tax effort. In Canada today the former reason is more relevant. Ideally, equalization payments compensate provinces because they have unfavourable income distributions and not because they have poor tax efforts.

At the meeting of the Tax Structure Committee, the following equalization formula was adopted:

$$G_i = P_i \left[\frac{R_c}{P_c} - \frac{\left(\frac{R_c}{B_c}\right) B_i}{P_i} \right]$$

where

G is the amount of the equalization payment
P is population
R is actual tax revenues (from one or more sources)
B is the common agreed-upon tax base (for one or more sources)
subscript i refers to province i
subscript c refers to all provinces combined.

Quite clearly the equalization payment G_i depends upon the population of the province times the disparity between per capita tax revenue for all provinces combined $\left(\frac{R_c}{P_c}\right)$ and the per capita hypothetical tax yield in the province $\left[\frac{\left(\frac{R_c}{B_c}\right) \cdot B_i}{P_i}\right]$.

Note that the hypothetical tax yield in the province is calculated by multiplying the tax base in the province, B_i, by a *national average tax rate* $\left(\frac{R_c}{B_c}\right)$ rather than by the province's own tax rate. Thus the tax yield to the province is not its actual yield but a hypothetical tax yield. *When the per capita yield from a given tax for all provinces combined exceeds the hypothetical per capita yield from that tax to the province, the province receives an equalization payment.*

A simple example illustrates the calculation of equalization payments. It is estimated that in fiscal 1966-67 the population of Nova Scotia will be 778,000. It is also estimated that in 1966-67 total retail sales tax revenue in the 10 provinces will reach \$689 million and Canada's population will be 20 million; therefore per capita retail sales tax revenue in all provinces combined will reach \$34.45. In 1964 total retail sales in the 10 provinces amounted to \$16,500 million; this figure is divided into total retail sales tax *revenue* in 1966-67 (\$689 million) to get a national average tax rate $\left(\frac{R_c}{B_c}\right)$ of .0418 or 4.18 per cent.[1]

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[1] Note that the figures for tax base lag more than two years behind the figures for retail sales tax revenue. Retail sales figures are adjusted to take into account recent changes in the DBS concept of retail sales. This involves a reduction of \$350 per capita from total retail sales (to take into account the fact that food is not subject to retail sales taxes) as well as a further reduction of construction material sales.

Finally, total retail sales in Nova Scotia in 1964 were \$507 million. Thus the equalization payment to Nova Scotia is

$$
\begin{aligned}
G_i &= 778{,}000 \times \left[\$34.45 - \frac{0.0418 \times \$507{,}000{,}000}{778{,}000} \right] \\
&= 778{,}000 \times (\$34.45 - \$27.24) \\
&= (778{,}000 \times \$7.21) \\
&= \$5.6 \text{ million}
\end{aligned}
$$

This exercise is carried out for *all* provincial revenues and the calculated equalization payments are added (regardless of whether they are positive or negative) to arrive at the total equalization payment to the province for the year.

The presence of hypothetical tax yield calculated from *national average tax rates* marks the only distinctive feature of the new formula itself. The old formula was the same except that *actual* tax yield R_i was used instead of the *hypothetical* tax yield $\left[\left(\frac{R_c}{B_c}\right) \cdot B_i\right]$. A consequence of using the latter rather than the former is that the amount of equalization going to provinces with relatively low tax efforts is reduced. For example, under the new formula a province which unilaterally lowers its retail sales tax rate below the national average does not lower its hypothetical retail sales tax yield. Hence it does not receive any additional equalization as a result of its move.[2] Under the old formula it can be demonstrated that it would receive some compensation for lowering its retail sales tax rate. Thus the new formula is an improvement in that equalization payments do not accrue to a province because it has a low tax effort.

The most important change in the new equalization proposal is its greater comprehensiveness. Under the old agreement, only the yields to provincial governments from the personal and corporate income tax, the estates tax and adjusted natural resource revenues were equalized. The new proposal equalizes the yields to provincial governments from *all* tax and other revenues. Thus the new proposal takes into account a poor province's *total* financial capacity and makes it possible for it to provide a level of services closer to the national average level.

Another significant change in the new formula is that the standard tax yields (i.e., the yields from personal income tax, corporate income tax and estates taxes) are equalized up to the national average rather than up to the average of the two provinces having the highest tax yields.

There are two exceptions to the use of this formula. In the transition from the old formula to the new one, equalization payments to Saskatchewan declined from \$33 million to zero; consequently it was decided that they should be gradually phased out over the period 1967-1972. Saskatchewan will therefore receive \$27 million during the fiscal year 1967-68. Secondly, with the implementation of the new formula, the Atlantic Adjustment Grants were discontinued. Consequently, the federal government guaranteed not to allow the total equalization payment to any Atlantic province to fall below an amount equal to its Atlantic Adjustment Grant plus the equalization payment determined by the old formula. This guarantee is relevant only to Prince Edward Island since the increases in the equalization payments to other Atlantic provinces are relatively large.

Higher Education and Technical and Vocational Training Agreements Arising From The Conference

On March 31, 1967 federal grants to the universities of \$5.00 per capita (made through the Canadian Association of Universities and Colleges) will expire. Under this program grants to Ontario universities for the fiscal year 1966-67 will reach an estimated \$33.4 million.

The Technical and Vocational Training Agreement also expires March 31, 1967. This agreement comprises 10 programs under which provincial governments receive federal assistance varying from 50 to 100 per cent of the costs of individual programs. It is the intention of the federal government to allow these 10 programs to lapse.

However, the federal government does intend to assume full responsibility for employment-orientated adult retraining. Consequently it will in effect finance some areas previously covered by these 10 programs. Just what parts will be financed depends on the definition of adult and on what will be regarded as retraining. Many of the details of this proposal have yet to be worked out by the federal and provincial representatives.

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[2] To some extent a province may affect the national average tax rate by lowering its own rate. The decline in the national average tax rate will lower the provinces' hypothetical per capita yield and consequently increase its equalization payment. However, the unilateral reduction of its retail sales tax also reduces to some extent the per capita retail sales tax revenues for all provinces combined. If the per capita retail sales tax revenue for all provinces combined declines by the same amount as the per capita hypothetical yield to the province then there is no change in the disparity between the two and therefore no change in equalization payments.

In addition to providing financial assistance for operating costs, the federal government now provides financial assistance to provincial governments based on the capital costs of their technical and vocational schools. Under this capital expenditure program, a provincial government receives 75 per cent of capital costs up to the point where its total federal assistance amounts to $480 times the province's population between the ages of 15 and 19 in the census year 1961. Thereafter the province receives additional assistance equal to 50 per cent of capital costs. In 1965 the expiry date of this capital assistance agreement was extended from March 31, 1967 to March 31, 1970.

At the October conference a number of provincial representatives expressed dissatisfaction with the 1970 expiry date; consequently the federal government proposed to extend it indefinitely. However, it also proposed to limit the total amount of federal financial assistance to $800 times the 1961 provincial population between the ages of 15 and 19. Under this proposal Ontario would be entitled to approximately $48 million in grants after March 31, 1967.

Beginning on April 1, 1967 the federal government will provide the provinces with either 50 per cent of operating costs of post-secondary institutions or $15 per capita — whichever is to a province's advantage. It has been estimated that Ontario will receive $106 million during the fiscal year 1967-68 if it chooses the $15 per capita option. While federal and provincial representatives are still putting the finishing touches on the definitions of the terms post-secondary and operating costs, it does seem likely that a post-secondary educational institution will be defined as one which requires for admission the successful attainment of the academic level of junior matriculation. If this definition is used, all those institutions designated by provinces admitting students who have completed grade 12 will be included,[3] and the 50-per-cent option will likely prove to be the more generous one from Ontario's point of view.

The method by which transfers are made from the federal treasury to provincial governments involves a unique combination of federal tax abatements, equalization payments and unconditional grants. Each province is to receive the following:

(a) An additional four per cent of total personal income tax revenue and one additional percentage point of taxable corporate income. Since the federal government will simultaneously lower its personal income tax by four per cent and corporation income tax by one percentage point, the increased provincial government taxes will not affect total tax payable by persons and corporations. Ontario residents will now pay 28 rather than 24 per cent of their personal income tax to the Ontario government. And the Ontario government will likely receive 13 rather than 12 percentage points of taxable corporate income.

(b) An accompanying equalization payment (for provinces receiving equalization) which will be determined by the equalization formula described earlier. This has been labelled by the federal representatives as a "revenue equalization" payment.

(c) An adjustment necessary to bring the above equalized tax abatement going to the provincial government up to 50 per cent of operating costs of post-secondary institutions or $15 per capita — whichever option the province in question has chosen. Federal representatives have labelled this adjustment "program equalization," but it is in effect an unconditional grant since the provincial governments have no legal responsibility to spend it on post-secondary education.[4]

Tax-Sharing and Cost-Sharing Negotiations

Despite the Tax Structure Committee's projections of much larger deficits in the provincial-municipal sector of government relative to the federal government, the latter is providing no additional abatements of the personal and corporate income taxes to the provinces over and above those in the post-secondary education agreements.

At the conference, the federal government proposed to opt out of three major shared-cost programs — hospital insurance, the Canada assistance program and the health grants. As compensation for opting out, it offered to give the provinces an additional abatement of 17 percentage points of the personal income tax plus an equalization payment (in the case of provinces which received equalization) determined by the equalization formula described earlier.[5] In addition, the federal government offered to provide an adjustment to bring total compensation up to an amount equal to the federal government share of the total costs of the three programs in the forthcoming five-year period. This form of compensation is the same type as that described earlier in connection with the post-secondary education agreement.

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[3] The definition includes all those who have successfully completed grade 12 in Ontario, British Columbia and New Brunswick; and all those who have successfully completed grade 11 in the remaining provinces.

[4] There is indeed no legal responsibility for a province to spend any of the revenue transferred to it on post-secondary education.

[5] This equalization payment is determined by substituting the provincial and national yields for 17 percentage points of the personal income tax into the new equalization formula.

Representatives of the provinces (except Quebec which has already opted out of the three programs in question) unanimously rejected this proposal. However Prime Minister Robarts stated that "... starting in 1969, we would be willing to consider taking over the three major shared-cost programs in exchange for 17 points of the personal income tax."

One of the final concrete results of the conference was an agreement to reconsider these federal-provincial financial arrangements in two years time. This was done in order to allow all governments to absorb the recommendations of the Carter Commission and the (Ontario) Smith Committee in the interim before deciding on longer-term and more binding federal-provincial agreements.

CANADA AND THE U.S. GUIDELINES

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For a considerable time, the United States has had large deficits in its balance of international payments. To meet these deficits, it has been forced to reduce its holdings of gold in its reserve fund. This has tended to bolster the reserve funds of other countries, mostly in the Western World, at the same time weakening the backing of the U.S. dollar. This development could not be allowed to continue and the United States moved to protect its currency as the major world trading currency by introducing various measures and guidelines over the past few years.

The United States has every right to correct its balance of payments. Canada did so in 1948 and again in 1962; and while our problems were more acute, in both instances we took more drastic action than the United States. In 1948 Canada imposed foreign exchange as well as import controls; in 1962 it introduced a 15 per cent surcharge on imports, and ultimately devalued and fixed the value of the Canadian dollar. While the latter measures did affect imports from other countries, none of Canada's major trading partners experienced any serious dislocations. Furthermore, it was in the interest of the world trading community that Canada's dollar was shored up and regained respectability.

The problem is, of course, that when a country as large and economically powerful as the United States prescribes corrective remedies, these are bound to have an impact on the economies of the countries with whom it does business. This impact will be somewhat proportional to the type and degree of interdependence between the United States and its particular trading partner. On this account, Canada is in a unique position.

UNITED STATES CORRECTIVE MEASURES

The Interest Equalization Tax

The Interest Equalization Tax became effective in September, 1963. This tax, based on the value of the security acquired, is imposed at the rate of 15 per cent in the case of common stocks. In the case of debt securities, the rate of tax is geared to the remaining period to maturity, ranging from 2.75 per cent for maturities between 2¾ and 3½ years to 15 per cent for maturities in excess of 28½ years.[1] The application of this tax means that an issue floated in New York could, for the long-term maturities, have an effective yield of about one per cent less than normally. This in effect forces the borrower into proportionately higher interest costs.

In recognition of Canada's special position and vulnerability, Canada was given an exemption from this tax provided its reserves of gold and foreign exchange remain below US $2.6 billion, a healthy level of reserves by any historical standard.

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[1] *Editor's note:* In January, 1967 this tax was doubled, raising the rate in the case of common stock, and doubling the rates on the sliding scale in the case of debt securities.

U.S. Guideline Policies — Financial Institutions

In the spring of 1965, the United States issued guidelines for the investment policies of the banking system and the non-bank financial institutions. These initial guidelines did not apply to Canada either, but in December, 1965 they were extended to include Canada, except in the second instance indicated below.

The following U.S. guidelines have been of importance to Canada:

(1) Non-bank financial institutions such as insurance companies and pension funds were not to lend, for *short-term* maturities of 10 years or less, more than 109 per cent of such loans outstanding at the end of 1964. That is, if such a financial institution had one million dollars in foreign loans outstanding at the end of 1964, such outstanding loans were not to exceed $1,090,000 at any time in 1966.

(2) *Long-term* (over 10 years) foreign investments by *non-bank financial institutions* in 1966 were not to exceed 105 per cent of the amount of such loans outstanding at September 30, 1965. These financial institutions, which include insurance and trust companies, have been a major source for Canadian borrowing in the United States. Canada, however, was exempted from this provision provided foreign exchange reserves did not exceed US $2.6 billion.

(3) *On banking investments*, foreign loans were not to exceed 109 per cent of the level outstanding at December 31, 1964. Again in simple terms, if a million dollars were borrowed by Canadian residents prior to this date, total loans outstanding could rise to $1,090,000 by the end of 1966.

U.S. Guideline Policies — Private Business Concerns

Since the spring of 1965, private business has been on a voluntary restraint program, designed to maximize its contribution to the balance of payments. This voluntary program involved the following steps:

(1) Export expansion.
(2) Repatriation of income from abroad.
(3) Repatriation of short-term financial assets.
(4) Maximum use of funds obtained abroad for investment purposes.

In December, 1965, more specific guidelines were issued with the formulation of separate targets for direct investment abroad.

Under the new guidelines to business concerns, the U.S. government directed that during the 1965-1966 period "direct investment" by American industry in foreign countries should not exceed 90 per cent of that made between 1962 and 1964. If, for example, the total of undistributed profits of the foreign subsidiaries of a U.S. company plus the net funds which they received from the United States during the years 1962 to 1964 equalled one million dollars, then undistributed profits plus net funds received from the United States for the two years 1965-1966 could be as high as 90 per cent of this figure, or $900,000. In other words, the annual average in 1965 and 1966 could be $450,000, compared with an annual average of $333,333 during the 1962-1964 period.

The U.S. companies were to maintain these goals in their overall position vis-a-vis their subsidiaries in the rest of the world. As a result, Canadian subsidiaries could receive more or less than is indicated by the percentage limitation of the guidelines. If a U.S. company felt that economic conditions warranted this, it could emphasize its investments in Canada at the expense of potential investments in Europe, or vice versa.

New Regulations Regarding Tourist Imports

On June 30, 1965, the President of the United States requested a reduction in the tourist exemption from $100 to $50 per person per year. However Congress refused to accept this change. Instead the following concessions were made:

(1) The basis for valuation of tourist purchases was changed from wholesale to retail.
(2) Duty-free liquor allowance was reduced from one gallon to one quart.
(3) Goods in excess of $10 (retail) were no longer to be mailed to the United States, but had to accompany the tourist.

A BRIEF COMPARISON BETWEEN THE UNITED STATES AND CANADIAN BALANCES OF PAYMENTS

The United States has run a chronic deficit in its international accounts since 1950. From that year to the end of 1965 the cumulative deficit reached almost $33 billion, resulting in heavy losses of gold and greatly increased foreign holdings of liquid dollar assets. Consequently official holdings of the U.S. gold stock have fallen from about $23 billion in

1950 to only $13.3 billion in 1966 – $1.3 billion over the $12 billion earmarked to back the U.S. dollar. The United States, therefore, finds itself in a relatively precarious position: most of its total gold stock is earmarked, yet foreigners hold over $23 billion of dollar claims potentially payable in gold on demand.

Deficits in the U.S. balance of payments are of a completely different nature from those in Canada. In the United States, basic commercial and service transactions produce healthy surpluses. The surplus on merchandise trade alone in recent years has generally been in excess of $5 billion. An additional surplus has been recorded in service transactions, with large investment income surpluses more than offsetting deficits in shipping and foreign travel. The resulting balance on goods and services – Canada's current account balance – has consistently shown a great deal of strength (in 1964 and 1965 surpluses of $8.5 billion and $7.0 billion respectively were recorded). In contrast, Canada has suffered consistent deficits on current account ranging from $1.0 billion to $1.5 billion since the mid-fifties, with the exception of 1963 and 1964 when the deficits were more moderate.

The so-called current account surpluses of the United States have been more than offset by governmental military commitments abroad, grants in aid to developing countries, a large volume of private direct investment abroad, and private short-term capital outflows. As a consequence, the United States has had to balance its international accounts by a loss of gold and large increases in foreign holdings of liquid U.S. dollar assets.

During the past 15 years, Canada had its only surplus on current account in 1952. While the merchandise trade balances were favourable in seven of these 15 years (mostly in recent years), it has been the current non-merchandise transactions which have been consistently in the red. These deficits have grown from $370 million in 1951 to over $1,200 million today.

These continuing current account deficits have usually been the focus of attention in discussions of Canada's balance of payments. However, in looking at the problem of losses of gold and foreign exchange, all too often it has not been realized that there is no necessary connection between the two.

Canada has been acquiring a continuing flow of long-term capital from abroad in the form of foreign direct investment and Canadian long-term borrowing abroad. In most years, this inflow has been more than adequate to keep the Canadian balance of payments in a sound position. These relatively autonomous capital flows are the really important considerations in an evaluation of the state of the balance of payments. When allowance is made for these long-term capital flows the imbalance in the Canadian balance of payments becomes relatively small. It is only when short-term, highly liquid capital flows become an important balancing factor that Canada's international accounts become a source of concern. Such liquid capital flows are highly volatile and can easily reverse themselves into an outward flow, leading to undesirable strains on our official reserves and the Canadian dollar.

SOME FACTS AND FIGURES

The Canadian Current Account

U.S. guidelines produced no visible effects on merchandise trade between Canada and the United States. In 1965 both imports and exports were more than 13 per cent higher than in 1964. In fact, imports rose by almost 16 per cent – a jump which would be considered sizable were the Canadian economy not in full gear. (In 1964 imports from the United States jumped by 17 per cent.) In 1966, exports to the United States in rising some 24 per cent significantly outpaced imports from that country, resulting in an actual decline in the trade deficit.

No unusual developments appear to have taken place in non-merchandise transactions with the United States in 1965. Interest and dividend payments, the obvious item to study, were moderately higher than the year before, but hardly enough to suggest a direct connection with the U.S. guidelines. Many U.S. companies may well have moderated their remittance of dividends because of substantial investment plans in Canada for 1966. During 1966, dividend payments abroad did not increase as might have been expected, but interest payments rose substantially as a result of the heavy volume of non-equity borrowing in the preceding year. The travel account with the U.S. deteriorated by some $30 million in the first three quarters of 1966.

Long-term Capital Flows

As usual, Canada was a major recipient of foreign long-term capital in both 1964 and 1965, with more or less the same net inflow in both years. Foreign direct investment in Canada in 1965 was substantially larger than in the previous year, but this was more than offset by net sales to Canadians of outstanding Canadian stocks held by non-residents, a development clearly associated with the U.S. balance of payments measures (15 per cent tax on common stock). In spite of the guidelines, direct U.S. investment was substantially higher again the following year, though partly offset by U.S. residents disposing of outstanding Canadian bonds and common stocks.[2]

Canada's exemption from the Interest Equalization Tax was most telling in the record volume of new issues of Canadian securities in the U.S. capital market. New issues of Canadian bonds amounted to about $1.1 billion in 1964 and $1.2 billion in 1965. Such new issues were especially heavy towards the end of the year, until they were officially deferred in mid-November to 1966 delivery dates. As a result, 1966 opened with an exceptional volume of such new issues and continued at a very high level, amounting to $1,229 million during the first three quarters. On the whole, corporation bonds and debentures were an important part of this total, reflecting the very high level of business investment activity. In each quarter of 1966, the Government of Canada repurchased substantial amounts of its outstanding bonds in order to bring Canada's exchange reserve position below the maximum level agreed upon in acquiring an exemption from the Interest Equalization Tax. These government efforts were conspicuously assisted by an unusually heavy net outflow of capital for the acquisition of United States corporate stocks. During the first three quarters of 1966 this outflow was no less than $236 million. Obviously, the New York Stock Exchange had become more interesting relative to Toronto when American participation in the Toronto Stock Exchange declined.

Short-term Capital Flows

The U.S. guidelines were responsible for significant developments in the flow of short-term capital assets. In 1964, there was an inflow of $196 million for the acquisition of Canadian finance company paper. But following this, the U.S. guidelines and the finance company default in June of 1965 reduced foreign investors' interest and reversed this flow into an outflow of $162 million.

The most dramatic reversal in flows occurred in the foreign currency business of Canadian banks. During 1964, Canadians had built up their swapped deposits[3] and other foreign currency bank balances with Canadian banks, and these funds, together with increased balances deposited by U.S. residents, were channelled into investments in Britain[4] and Continental Europe.

Following the introduction of the U.S. guideline program in February, 1965, the Minister of Finance requested that the chartered banks maintain their net asset position vis-a-vis U.S. residents at or above the level of this position at the end of 1964. As U.S. residents withdrew U.S. dollar deposits from Canadian banks in response to the guidelines, the banks met only part of this drain by liquidating investment in the United States. The remainder was met by drawing a phenomenal $955 million during 1965 from other countries by liquidating assets and increasing liabilities.

The result of these moves was that, in spite of a $529 million outflow to the United States, they registered a net inflow into Canada of $426 million. These drastic flows were an important factor in financing the current account deficit during the first half of 1965. (During the second half, proceeds of new Canadian bond issues in the United States were the most important source for such financing.)

In 1966, swapped deposits loomed large again in the substantial net outflow of short-term capital; the largest volume by far left the country during the third quarter.

Canada's "Contribution" to the U.S. Balance of Payments

There is no agreement on a satisfactory way to measure Canada's contribution to the U.S. balance of payments. Canada's current account deficit with the U.S. in 1965 is estimated to have jumped to $1.9 billion. This is an exceptionally large deficit, which compares with only $1.1 billion in 1962. The current account balance is, of course, not a final measure of Canada's contribution.

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[2] In the third quarter of 1966 a highly unusual development took place when a net inflow of $90 million was recorded in Canadian direct investment abroad (normally an outflow of capital) in connection with the sale by B.A. Oil (Canada) of its U.S. subsidiary (B.A. Oil Products Co.) to Gulf Oil Co. in the United States for $182.5 million. Gulf Oil owns 64.8 per cent of B.A. Oil. While the reason for this transaction remains uncertain at the present time it was undoubtedly against the spirit of the U.S. guideline policies. In a somewhat circumspect way it made available to B.A. Oil (Canada) a vast amount of capital, which would have been difficult to acquire any other way.

[3] Term deposits converted into foreign currency, usually U.S. dollars, which the bank has undertaken through a forward contract to convert back into Canadian dollars at maturity. The return to the depositor is determined by the yield on his foreign currency deposit and the profit or loss on the exchange swap.

[4] Great Britain was going through one of its exchange and balance of payments crises.

CANADA'S "CONTRIBUTION" TO THE U.S. BALANCE OF PAYMENTS
(Millions of Dollars)

	1962	*1963*	*1964*	*1965*
Merchandise exports	3,760	3,970	4,396	4,993
Merchandise imports	4,205	4,458	5,204	6,034
Trade Balance	— 445	— 488	— 808	—1,041
Non-Merchandise Balance	— 667	— 674	— 827	— 871
Current Account Balance	—1,122	—1,162	—1,635	—1,912
Long-term Capital	+ 668	+ 843	+1,013	+ 964
BALANCE I	— 454	— 319	— 622	— 948
Short-term Capital	+ 423	+ 7	+ 626	— 508
BALANCE II	— 31	— 312	+ 4	—1,456

Canada has been a traditional recipient of a vast inflow of U.S. capital. In recent years long-term capital inflows from the United States have run at about one billion dollars annually. When allowance is made for such long-term capital flows, one arrives at *Balance I* in the accompanying table, showing a Canadian contribution to the U.S. balance of payments with a range from over $300 million in 1963 to over $900 million in 1965. This *Balance I* is the most satisfactory measure of Canada's contribution, as it is the most stable measure over any period of time.

Admittedly, there is a fairly important flow of short-term capital between the two countries, but the very nature of these flows make them an unreliable and very volatile factor in the overall yardstick of Canada's role in the U.S. balance of payments. For the sake of comparison, short-term flows are also shown in the table, producing *Balance II*. This ranges from a U.S. contribution of four million dollars to Canada's balance of payments in 1964 to an exceptional Canadian contribution of over $1.4 billion to the U.S. balance of payments in 1965.

At this point, it appears that Canada's contribution in 1966 has been substantially smaller than in 1965, a reflection of the limited impact of the U.S. guidelines on the Canadian balance of payments.

U.S. Corporate Borrowing in Europe

The U.S. guidelines are having their greatest impact on U.S. business investment in Europe. Large-scale U.S. private investment in Europe is of relatively recent origin. Consequently, the need for fresh capital flows from the U.S. was quite large (in the absence of a substantial volume of retained earnings relative to expansion plans) when the guidelines were introduced to minimize this outflow.

The result of this was that U.S. companies turned to the European capital market on a large scale. *The Economist* of January 22, 1966 said:

> "The new and significant element here is the influx of American subsidiaries, which were forced on to the European capital market by last year's curbs on American bank lending abroad and, more importantly, by the "voluntary" restraints on loans from American parent companies to overseas affiliates. These American subsidiaries began borrowing in Europe's capital markets only late last year, but once they came it was with a rush: in the fourth quarter of 1965 they took about two-fifths of all funds raised by international bond issues and they account for about half the amount announced so far this year."

In *Barron's* of February 7, 1966 we read:

> ". . . On the Continent interest rates have climbed by fully one-half a percentage point, from the 6% incurred by American Cyanamid last fall to the 6½% which Avon Products, calling on the gnomes of Zurich, had to pay the other day. Some U.S. concerns — Honeywell for one — have settled for less money than they wanted, while others — American Radiator & Standard Sanitary — have found the terms wholly unacceptable. Since last winter, when U.S. industry bowed to the 'voluntary' guidelines, it has succeeded in tapping the European capital market for the equivalent of over half-a-billion dollars."

No statistics are available on outflows of capital from Canada for investment in such U.S. corporate issues. The former Ontario Liberal Leader, Andrew Thompson, charged in February, 1966 that a large drain of Canadian capital was indeed taking place. However, at the time of his charge there was no evidence of this and federal officials insisted that no more than a trickle was involved.

The European issues have become increasingly attractive with their higher yields and features for conversion into common stock. Under these circumstances, it became inevitable that Canadian financial institutions would do some shifting into higher yield Eurodollar debentures, though the extent of such Canadian investments in Europe remains undetermined. The need to keep capital in Canada in the face of U.S. restrictions was considered sufficiently great, however, that Mitchell Sharp, on March 16, 1966, made his first move to discourage these outflows by establishing the first official Canadian guideline.

In Europe there has been a tightening as well, resulting in a mixture of resentment and concern. No one really knows the size of the pool of available investment funds abroad — particularly the dollar pool. The European market has already absorbed a great deal more than was thought possible. Early in March 1966, well over $500 million had been raised on that continent and a dozen more issues were in the pipeline for an estimated $225 million in the next few months. In some quarters, resentment reached the point that control and restrictions were proposed. The market has become increasingly inaccessible for European borrowers themselves, who were at the same time effectively cut off from New York.

EVALUATION OF U.S. MEASURES AND THEIR IMPLICATIONS

Global Implications

The U.S. guidelines are likely to have some important *global implications*, which have as yet received little or no attention. It is obviously the intention of the U.S. government to bring its international payments roughly into balance and, if possible, to incur a surplus to recover some of the gold losses of past years. This can be expected to have some serious repercussions throughout the Western World. Past deficits in the U.S. payments balance have been a very important source of international liquidity in financing world trade. This source of liquidity will now dry up if the U.S. guidelines are successful. This may well have repercussions in international trade and world prosperity, unless the International Monetary Fund and the western nations in general can come up with a solution to the inadequacy of international liquidity in the future. There can be no doubt that Canada would be seriously hurt if world trade failed to remain the dynamic force it has been in past years.

This is not to suggest that the United States should not attempt to balance its international accounts, but rather that, if a balance obtains, every effort should be made to find some alternative to U.S. deficits to ensure adequate international liquidity. In fact, it is crucial that the United States reduce its chronic deficits, because sooner or later its gold position would become critical enough to upset the applecart of international finance even more seriously.

If it is reasonable to assume that the United States will succeed in balancing its accounts, a general scarcity of capital and liquidity may well present western countries with a problem of deflation rather than the inflation they have been worried about for so many years — and which preoccupies the United States and Canada today.

Implications for Canada

Canada is the only country excluded from the *Interest Equalization Tax* (as long as its foreign exchange reserves are not in excess of US $2.6 billion.) This exemption is an important safeguard against a potential weakening of the Canadian dollar. The $2.6 billion restriction does not unduly affect our scope for management of the money supply as has been suggested. Furthermore, under the present and probable future circumstances the likelihood of a chronic swelling of Canada's foreign exchange reserves is quite remote, though the Canadian government had to force these reserves down somewhat during 1966.

The Governor of the Bank of Canada said in his Annual Report:

> "Though we naturally had to take the agreement regarding reserves into account, we were able to pursue a monetary policy which in its broad lines was appropriate to the requirements of our domestic situation as it developed. . . . The limitation of our foreign exchange reserves embodied in the agreement is an undesirable feature from a Canadian point of view but from the United States point of view it is an essential one."

As for the business guidelines, it is impossible to predict their impact, especially as they apply on a world-wide basis. However, the following points are worth considering.

(1) A growing country like Canada needs more money than it has in domestic savings to finance its expansion. The major effect of the guidelines is likely to be scarcer capital, but at present it is impossible to say how much. To the extent that we have experienced some inflationary pressures this in itself need not be as harmful as it appears. As it has turned out, Canada had ample access to long-term U.S. capital during 1965 and 1966.

(2) In all guidelines the U.S. has suggested that it is desirable to give special consideration to underdeveloped countries, *Canada*, Japan and the United Kingdom by avoiding undue strain on these countries. This suggestion is in reference to a company's flexibility with regard to individual countries as all the guidelines apply to its position with the rest of the world. In March, 1965, Mr. J. L. Robertson of the Federal Reserve System said:

> ". . . You will presumably avoid any cutback that would inflict a serious burden on less developed countries . . . or such developed countries as Canada or Japan . . . and the United Kingdom . . ."

(3) There is no doubt that the guidelines are directed especially at Western European countries and the effects are likely to be felt most in those countries.

(4) On an individual basis, those companies which have subsidiaries in the early stages of development will be hurt much more than those with more established subsidiaries.

Canada has predominantly established subsidiaries which generate significant savings in Canada and so depend relatively little on new capital from the parent company.

(5) It is difficult to see U.S. companies failing to expand in Canada if it is to their advantage from a business standpoint. Presumably this would be accomplished by reinvestment of earnings and more borrowing in the Canadian capital market than before the introduction of the U.S. guidelines. Yet, in 1965 and 1966 there was no evidence of a decline in foreign direct investment. In fact, in both years such investment was above average. At the same time, there was increased borrowing in the Canadian capital market. This clearly reflected the high level of investment activity in the country.

(6) The important and rapidly expanding automobile industry in Canada has been specifically exempted to the extent this industry is committed to expansion under the Automotive Free Trade Agreement. In December, 1965, Secretary of Commerce, John T. Connor said:

> ". . . we realize that United States companies partly because we did not ask for restraint in 1965, have under way firm investment commitments in Canada (e.g., those incurred under the U.S.-Canadian automotive parts agreement) which they will find it necessary to carry out . . . we are certain they would want to give them the highest priority."

The guidelines regarding non-bank financial institutions are very important to Canada. If Canada did not have an exemption in this area it would be in serious trouble in financing its balance of payments, because these are the institutions through which the bulk of Canadian borrowing in the United States is conducted. It should be noted that if this exemption is lost, Canada cannot obtain more than the guideline limit allows even if it were willing to face the interest equalization tax. This is a vital fact that was overlooked both by the Canadian Chamber of Commerce and by W. Earle McLaughlin, chairman and president of the Royal Bank of Canada, when they said Canada should give up its exemption from the interest equalization tax to obtain freedom regarding the level of our foreign exchange reserves.

The main lesson Canada is learning from the U.S. guidelines and their effects appears to be that Canada will have to make some serious efforts to tidy up its own international accounts. It is quite probable that Canada will be in a position to continue as a large "importer" of U.S. capital. This only means that there is no need to bring about a balance or especially a surplus on current account. It has become clear, however, that it is no longer sound (if ever it was) to run the very large *and growing* deficits on current account we have.

The cards are stacked against Canada reducing its deficit on non-merchandise transactions, which presently is about $1.2 billion. At best it is to be hoped that this deficit can be kept from rising through improvement primarily in the tourist account and, to a lesser extent, in freight and shipping as well as business services.

This means that Canada's only scope for lasting improvement is limited to merchandise trade, both increased exports and less dependence on imports. This need points directly to the necessity of making substantial gains in productivity, of maintaining relative price stability and of promoting trade. The fact that U.S. subsidiaries in Canada loom very large in our total import picture and will be a crucial factor in our future success in promoting exports is clearly reflected in Canada's own guidelines to these firms.

Final Observations

Canada's basic balance of payments with the U.S. as well as other countries poses an interesting dilemma in the face of the U.S. guidelines. The Canadian debate on foreign investment and control in the Canadian economy has been rather critical of Canada's reliance on foreign equity investment, and many have urged a reversal of this process through a buying-back-Canada approach or, at the least, by stopping further take-overs and inflows of direct investment for expansion. There is no evidence for potential improvements in Canada's non-merchandise account of a sufficient magnitude to eliminate the dependence on foreign capital.

Presumably, then, there would be two alternatives:

(1) to rely exclusively on non-equity capital inflows (which are already dominant) to balance the books. Also, if Canada wanted to buy back into

foreign-controlled enterprise, it might be necessary to borrow even more heavily abroad and to channel domestic savings into industry only;

(2) to make an all-out effort to create large trading surpluses through greatly increased exports with less dependence on wheat to do the job, and to reduce the need for a vast and rapidly growing volume of imports.

The U.S. guidelines are the very instrument by which Canada is given an opportunity to realize the first objective, though it remains very doubtful whether it will be feasible to buy back much foreign enterprise. Instead, concern in Canada about the original guidelines would seem to imply that Canadians prefer to have no interference with the very process of increasing foreign control in industry which they are supposed to be so anxious to minimize.

As Bruce Hutchison said on March 1, 1966, in the *Globe and Mail:*

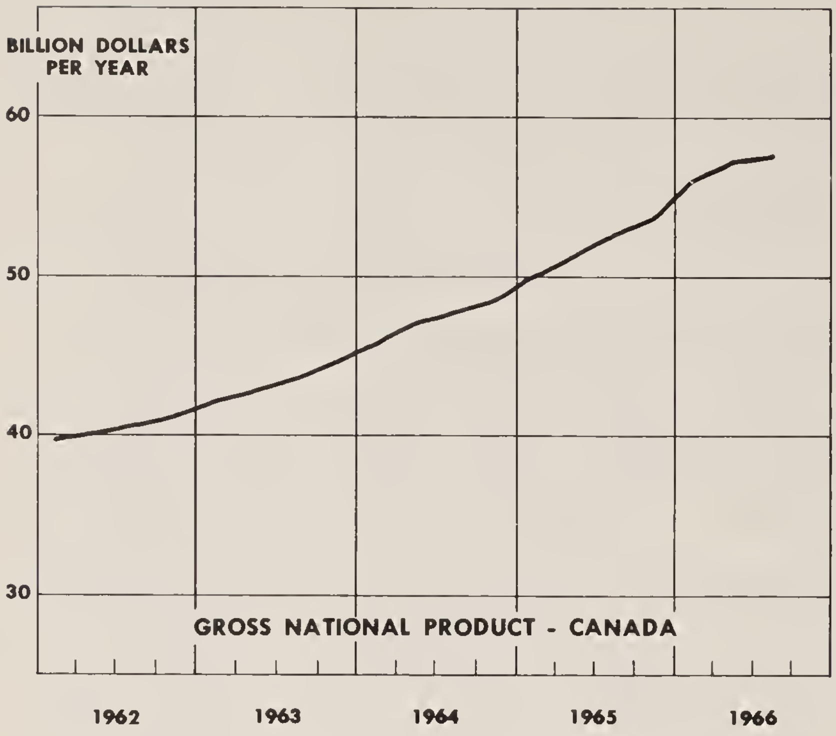
> "Hence we must soon grapple with a further series of questions that may well mean life or death for the Canadian nation. How much extra capital can we raise within Canada by our own savings? How much U.S. capital do we really need to assure the growth that in turn will assure prosperity and prevent internal disunity? How much foreign investment and debt can we afford to accept? How much capital can we be sure of getting from our neighbour over the next decade? Above all, how shall we use that capital — for sound, self-liquidating economic development or merely to pay our annual grocery bill?
>
> "If they are honest the politicians who ask us to curtail U.S. investment and economic penetration overnight lest we sell our birthright and lose our independence are bound to answer a simple question: What will happen to the Canadian nation if it arrests economic growth and drastically impoverishes itself?
>
> "The answer surely is that a nation so impoverished, unemployed and desperate will first fall to quarreling within itself and then, unable to solve its own problems, will lose hope and finally seek admission to the United States. A national policy of self-containment and economic isolation from the United States will not underwrite but will undermine Canadian independence in the end."

ONTARIO ECONOMIC INDICATORS - SEASONALLY ADJUSTED

(*Figures for Canada)

		1965			1966										
LEADING INDICATORS		Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.
Average Weekly Hours Worked in Manufacturing	Number	41.1	41.2	42.0	41.0	41.4	41.1	40.9	40.5	40.4	40.6	40.9	40.6		
New Dwelling Unit Starts	Number	3,878	4,752	4,714	5,237	4,519	4,400	3,757	4,287	3,619	3,460	3,233	3,756	3,903	3,616
New Orders in Manufacturing*	$ Million	3,005	3,014	3,103	2,996	3,123	3,141	3,092	3,088	3,086	2,927	3,167	3,007	3,141	
Housing Contracts	$ Million	54.8	64.7	52.2	46.0	48.9	72.4	48.6	52.4	42.7	51.5	58.3	52.4	80.5	40.8
Business, Industrial and Engineering Contracts	$ Million	101.6	95.4	122.8	106.1	146.6	213.6	114.4	131.3	103.1	114.8	148.2	120.7	128.7	113.2
Money Supply*	$ Million	19,724	19,766	19,789	19,813	19,879	20,014	20,169	20,176	20,118	20,353	20,632	20,812	21,044	21,190
T.S.E. Industrial Index	1956=100	172.4	168.9	168.8	169.7	169.1	166.4	164.1	158.9	162.2	162.5	150.0	144.0	147.2	148.1
COINCIDENTAL AND LAGGING INDICATORS															
New Dwelling Unit Completions	Number	3,075	3,877	4,491	5,204	4,588	5,142	4,949	4,444	7,501	7,371	6,036	3,779	2,822	4,680
Average Hourly Earnings in Manufacturing	$	2.29	2.29	2.28	2.30	2.32	2.33	2.33	2.33	2.35	2.37	2.39	2.41		
Gross National Product*	$ Million	- -	- -	53,760	- -	- -	56,176	- -	- -	57,336	- -	- -	57,740		
Cheques Cashed in Clearing Centres	$ Million	4,326	4,380	4,500	4,668	4,485	4,513	4,537	4,417	4,485	4,568	4,516	4,756	4,845	4,723
Retail Trade	$ Million	694	703	697	695	715	780	646	647	701	696	718	736	723	736
Labour Force	000's	2,605	2,621	2,641	2,668	2,676	2,688	2,706	2,705	2,717	2,727	2,768	2,750	2,759	2,730
Employed	000's	2,556	2,562	2,582	2,605	2,615	2,626	2,651	2,639	2,645	2,643	2,679	2,667	2,693	2,657
Unemployed	000's	49	59	59	63	61	62	55	66	72	84	89	83	66	73
Unemployed as % of Labour Force	%	1.9	2.3	2.2	2.4	2.3	2.3	2.0	2.4	2.6	3.1	3.2	3.0	2.4	2.7
Wages and Salaries	$ Million	895	908	917	924	937	936	948	951	964	975	979	989	1,002	
Industrial Employment Index	1961=100	118.3	119.2	120.2	120.7	121.3	121.8	122.8	123.4	124.5	122.6	124.2	124.0		
Total Industrial Production*	1949=100	261.6	264.0	268.6	268.9	271.5	273.8	274.1	274.0	273.3	270.8	274.2	275.7	278.3	279.1
Total Manufacturing		237.1	237.6	242.5	243.3	244.6	246.8	247.2	245.5	245.3	244.8	246.1	248.1	249.6	249.8
Non-Durables		230.2	229.1	234.7	235.5	236.8	240.4	240.3	239.7	240.2	240.2	240.7	239.3	241.4	241.8
Durables		245.0	247.5	251.6	252.5	253.7	254.3	255.2	252.3	251.3	250.2	252.4	258.5	259.2	259.1
Mining		362.2	377.8	385.0	372.7	387.1	390.4	393.5	397.8	391.5	376.3	389.6	384.4	401.1	401.9
Electric Power and Gas Utilities		471.2	478.0	471.6	488.9	490.7	492.3	485.5	503.5	504.8	495.6	513.7	519.3	512.0	524.7
Primary Energy Demand (Annual Rate)	BKWH	44.89	45.49	45.63	46.71	46.27	46.47	47.16	48.57	48.57	47.18	48.45	47.92	48.67	49.91
ECONOMIC INDICATORS NOT SEASONALLY ADJUSTED															
Domestic Exports*	$ Million	772.2	898.0	796.7	722.9	674.5	768.7	753.2	910.0	834.5	833.2	925.2	875.4	878.6	
Imports for Consumption*	$ Million	763.6	895.3	786.9	706.8	667.9	830.7	775.0	914.0	901.7	737.0	808.8	803.4	920.0	940.8
Foreign Exchange Reserves*	US $ Million	2,644	2,681	2,665	2,562	2,548	2,510	2,469	2,412	2,342	2,315	2,281	2,244	2,223	2,242
Price Index of Industrial Materials*	1935-39=100	259.3	259.4	261.3	265.4	268.1	264.6	264.7	264.2	263.0	262.4	260.6	258.9	257.8	255.6
Business Failures	Number	79	76	61	70	79	80	75	73	90	56	58	63	56	54
Business Failures - Liabilities	$ Million	2.7	3.4	3.8	3.4	7.0	4.7	10.0	5.5	6.5	2.5	7.9	2.9	2.0	2.7

ECONOMIC INDICATORS–SEASONALLY ADJUSTED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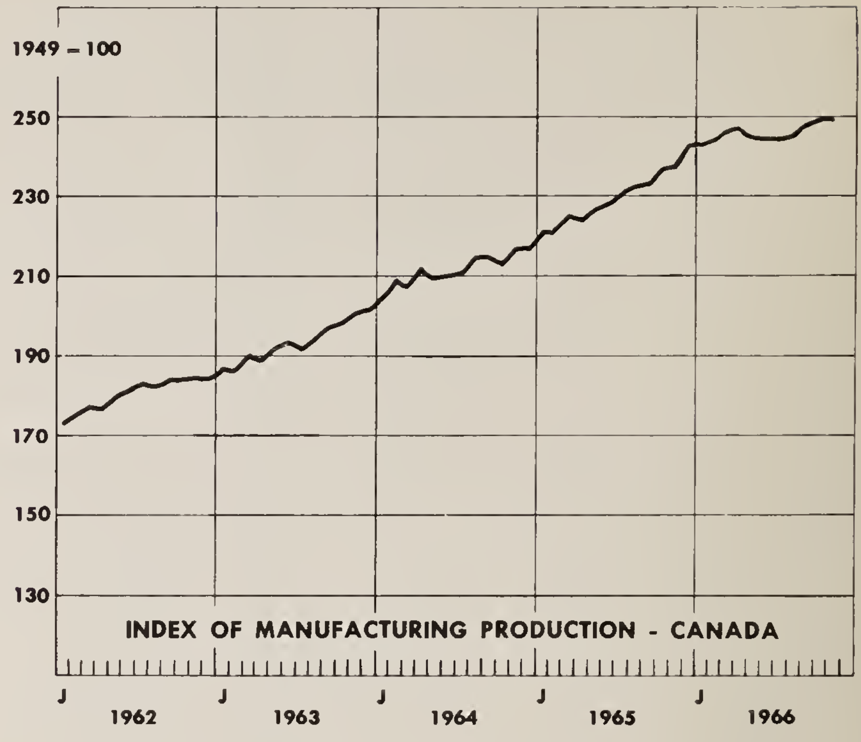
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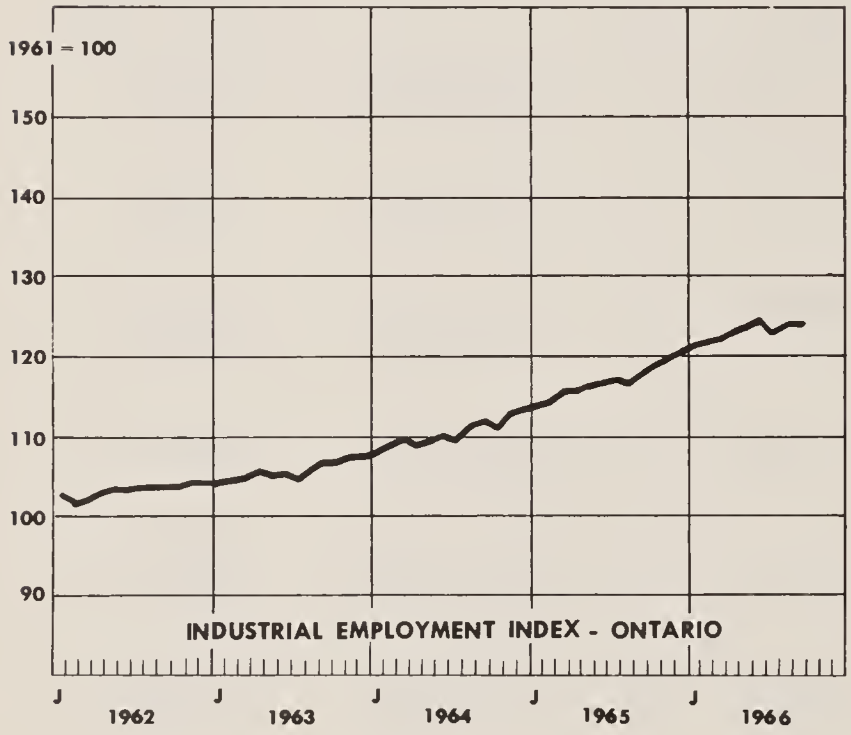
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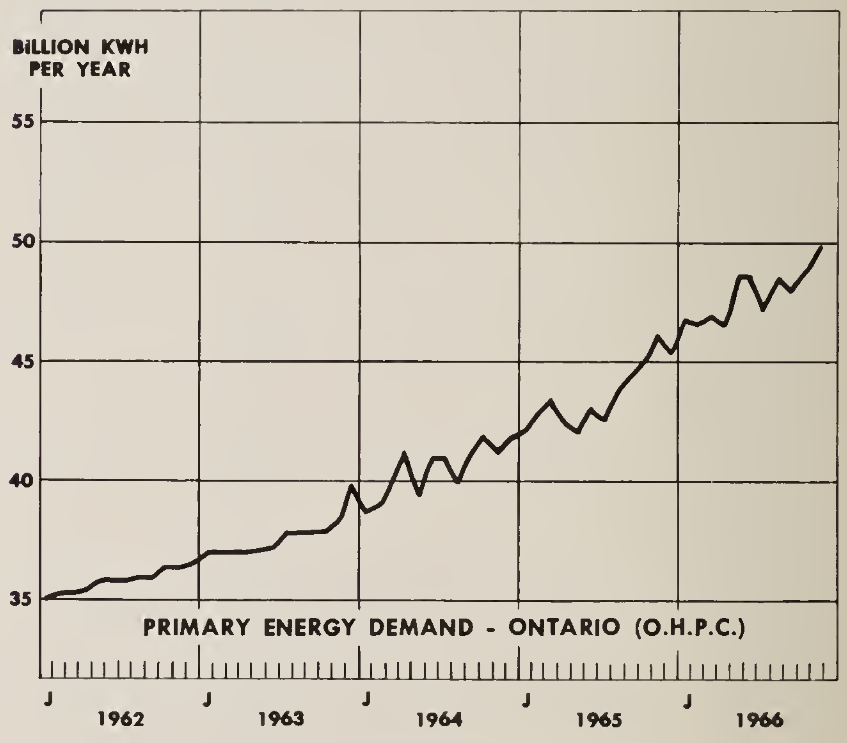
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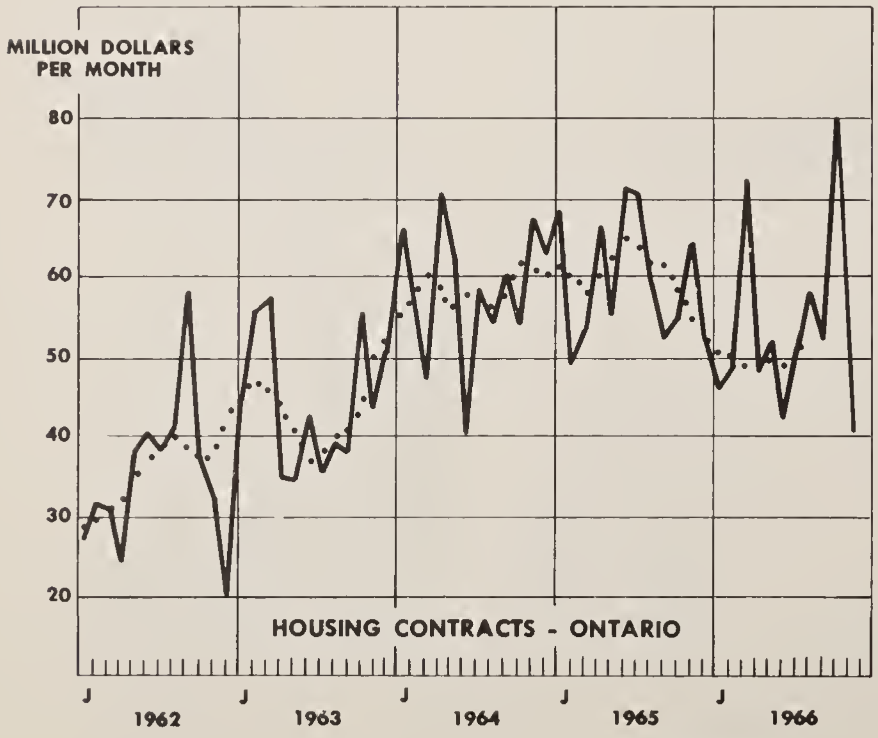
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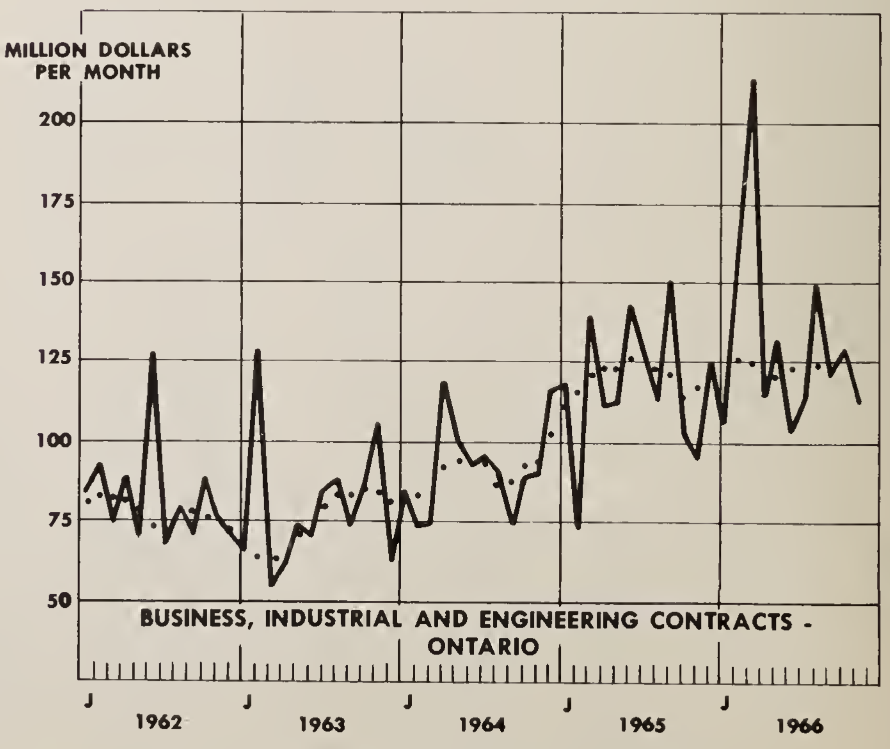
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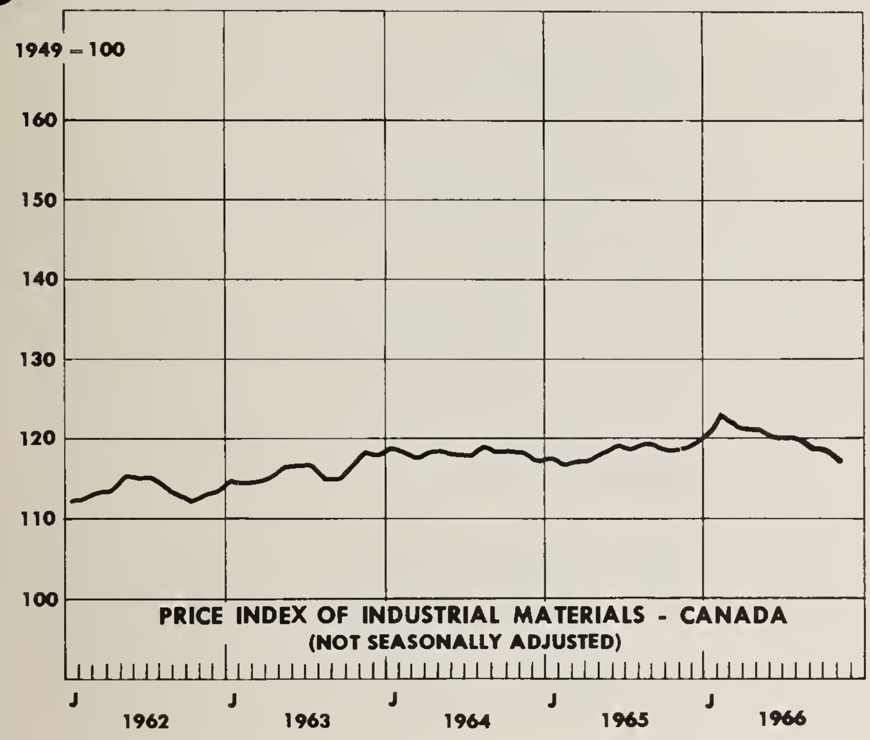
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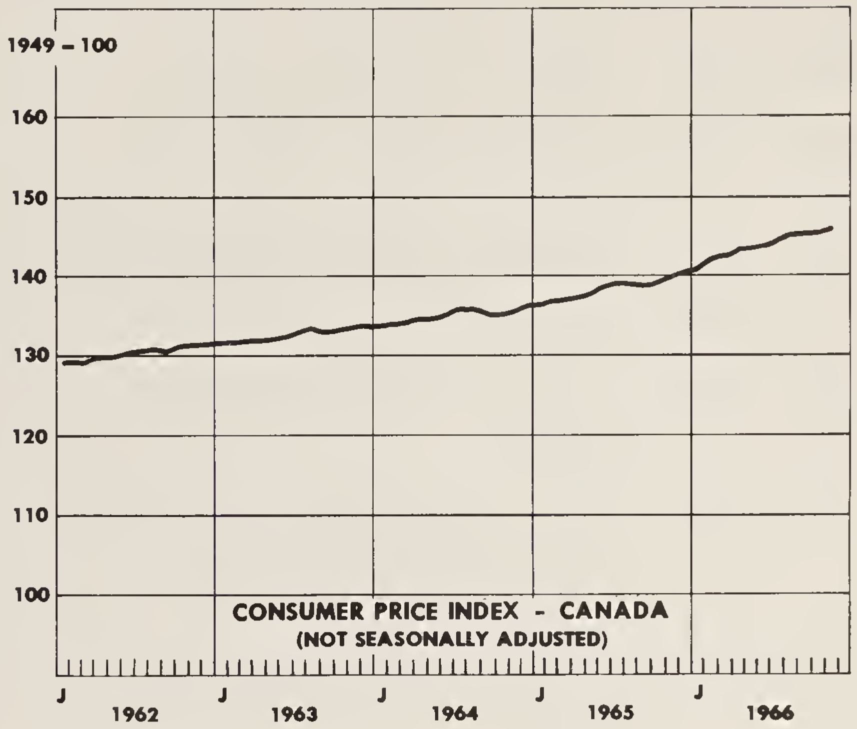
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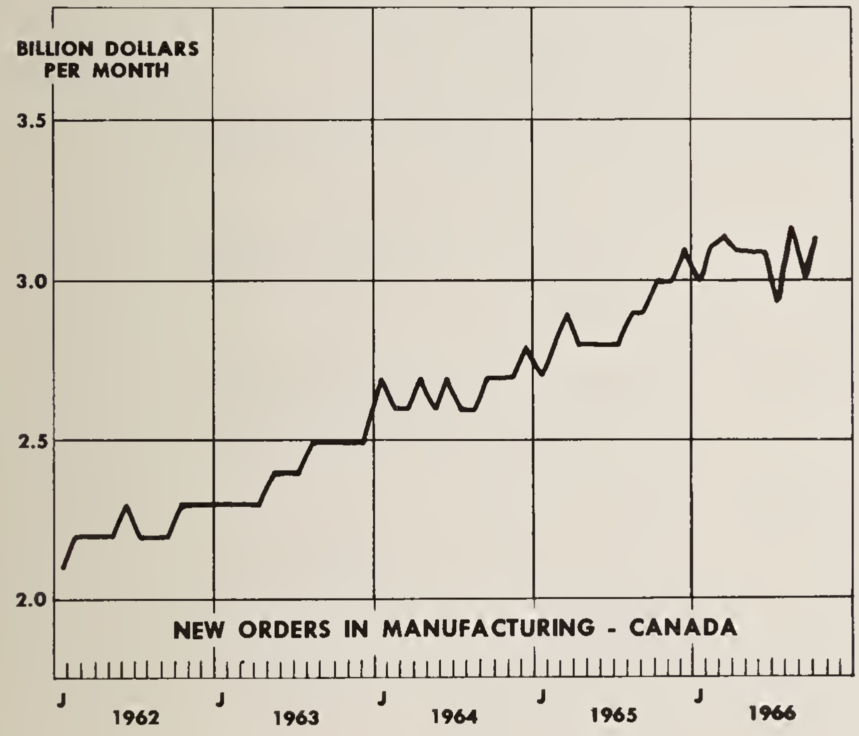
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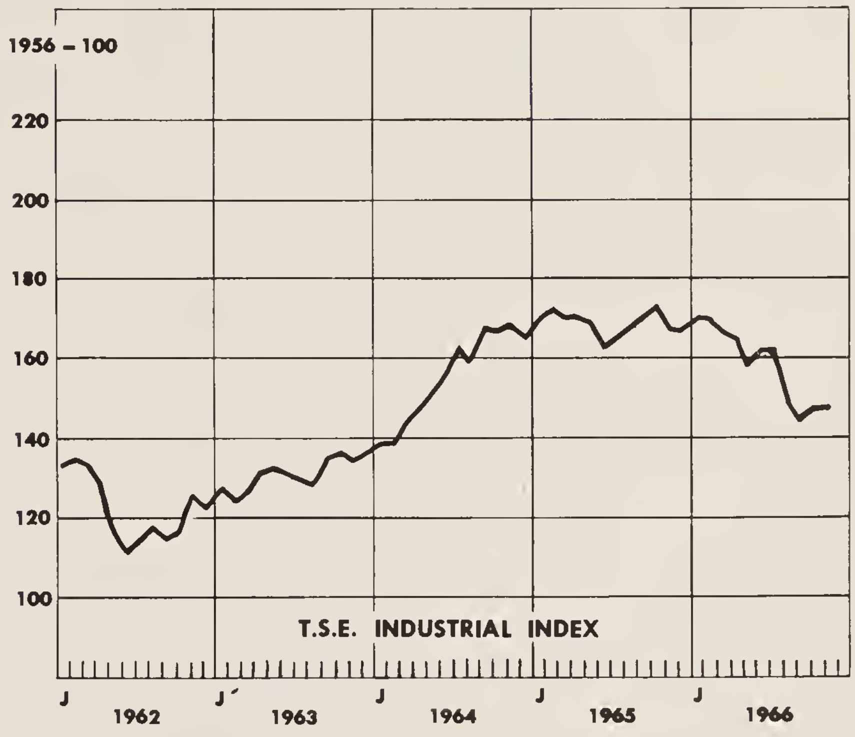
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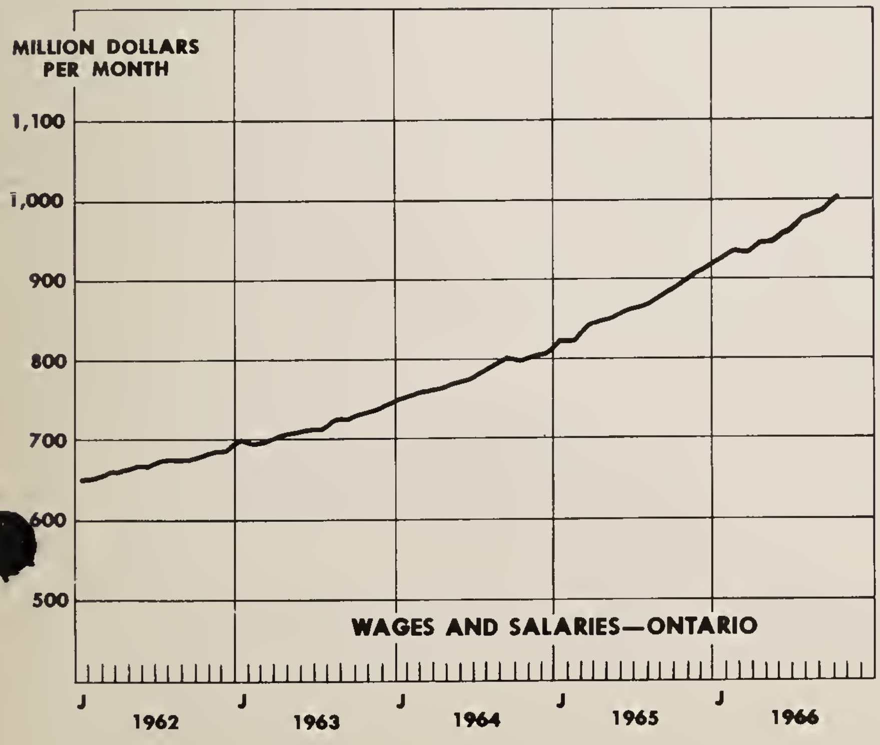
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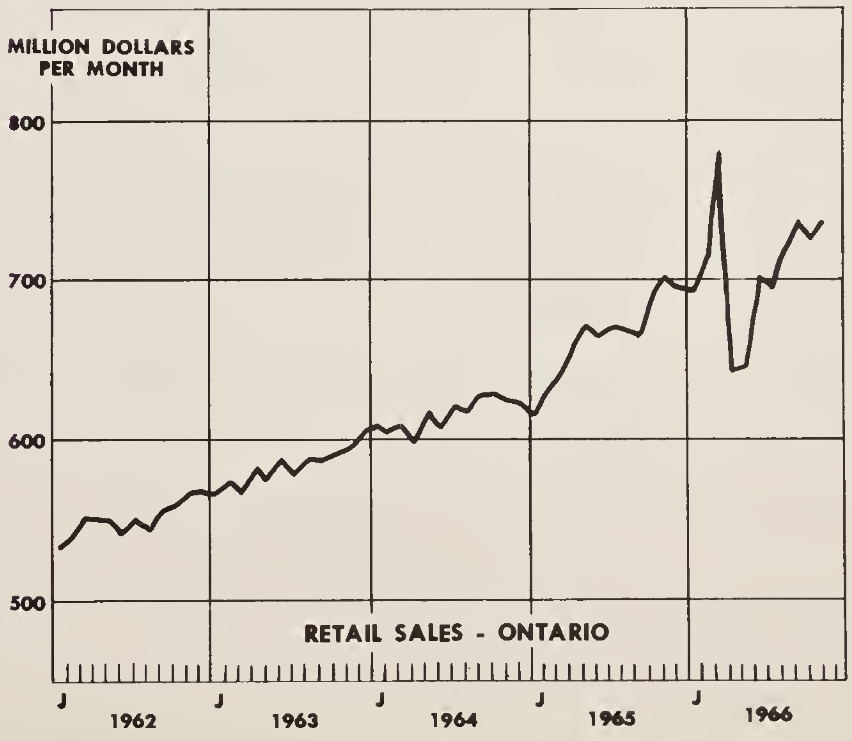
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